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GIFT  
NOV 24 1916



# Gleanings in Bee Culture



Vol. XLIV

NOVEMBER 15, 1916

No. 22

# FREE

An Old Book . . . but a Good One

## Winter Care of Horses and Cattle

By T. B. Terry

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The famous author of this book treats of the most humane and profitable care of both horses and cattle. Among the subjects he deals with are Shelter, Comfort, Feeding, and the Different Kinds of Feed, Watering, Exercise, Kindness, Saving Manure, Feed Crops, Barn Arrangements, etc. It's all valuable. It can be made to mean dollars and dollars to you, if you own a horse or cow.

This book will be sent free to you, postpaid, if you will send us your subscription (\$1.00) to Gleanings before Jan. 1 next, and so help us to reduce the volume of work in our subscription department during the January rush season. If you have already subscribed for Gleanings for a year in advance, send us 10 cents and we will mail you this famous Terry book—now old but always good. Fifty pages, paper bound, with introduction by A. I. Root.

This offer will hold good so long as our supply of these books lasts. We have now about 1200 of them. The book originally sold at 40 cents. The copies now in stock are a trifle shop worn, but not to a noticeable extent.

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Gleanings in Bee Culture, Medina, Ohio



## SHIPPING-CASES FOR COMB HONEY

Don't make the mistake of putting a fine lot of section honey in poor shipping-cases. It will lower the price to you and damage your future sales. "Falcon" cases are A No. 1, and will be a credit to any crop of honey. Prices are as follows:

### Shipping-cases in Flat, without Glass.

No. 1....holding 24 sections, $\frac{3}{4}$ x1 $\frac{7}{8}$ , showing 4.....	10, \$2.00; 100, \$18.00
No. 3....holding 12 sections, $\frac{3}{4}$ x1 $\frac{7}{8}$ , showing 3.....	10, \$2.00; 100, \$18.00
No. 1 $\frac{1}{2}$ ....holding 24 sections, $\frac{3}{4}$ x1 $\frac{1}{2}$ , showing 4.....	10, \$1.90; 100, \$17.00
No. 6....holding 24 sections, $\frac{3}{4}$ x5x1 $\frac{1}{2}$ , showing 4.....	10, \$1.80; 100, \$16.00
No. 8....holding 24 sections, 4x5x1 $\frac{1}{2}$ , showing 4.....	10, \$1.80; 100, \$16.00

### Shipping-cases with Glass.

	with 3-inch glass	with 2-inch glass
No. 11....Same as No. 1...Nailed, 35c; in flat, 1, 25c; 10, \$2.30; 100, \$21.00.....	100, \$20.00	
No. 13....Same as No. 3...Nailed, 22c; in flat, 1, 15c; 10, \$1.40; 100, \$12.50.....	100, \$12.00	
No. 11 $\frac{1}{2}$ ....Same as No. 1 $\frac{1}{2}$ ...Nailed, 35c; in flat, 1, 25c; 10, \$2.20; 100, \$20.00.....	100, \$19.00	
No. 16....Same as No. 6...Nailed, 30c; in flat, 1, 22c; 10, \$2.10; 100, \$19.00.....		
No. 18....Same as No. 8...Nailed, 30c; in flat, 1, 22c; 10, \$2.10; 100, \$19.00.....		

Red Catalog, postpaid

Dealers Everywhere

"Simplified Beekeeping," postpaid

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**The Guide to Nature**

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months' trial subscription.

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## Save Money on Your New Stoves

If you are thinking of getting a new heater or kitchen range this fall, by all means write to the Kalamazoo Stove Co. for their new catalog. To look at the beautiful illustrations of the popular styles of stoves in this book, and to note the low factory-to-you prices, would whet the appetite of any stove-buyer.

Never before have we seen such opportunities for saving money. Here are heaters, base-burners,

kitchen ranges, of the highest quality sold at remarkable money-saving prices. Almost every one has heard of the Kalamazoo Stove Co. This company has sold thousands of stoves and ranges to our readers. They had big exhibits at all the leading state fairs and many county fairs. They have sold goods direct by mail to customers in almost every town and city in this country.

They are known from coast to coast for quality goods and for satisfying their customers. One stove in their catalog that attracts our attention particularly is their new Kalamazoo Crown Heater. It's in Mission design, and has all the elegance and beauty that heretofore has been found only in the big base burners, and its price but a fraction of what most concerns would ask for a stove of this type.

Another new design that attracts great attention is the New Kalamazoo Mission Steel Range with white enamel splashers back and oven-door front. We doubt if any one has ever seen anything more beautiful for the kitchen.

WRITE NOW—HIGHER PRICES COMING.

Owing to increase in cost of materials every one is advancing prices. The Kalamazoo Stove Co. do not guarantee their present low prices after December 1, 1916. Therefore write at once—get your order in this month and take advantage of low prices.

A dollar saved is as good as a dollar earned; and if you are in the market for a stove, heater, base burner, or kitchen range, get in touch with the Kalamazoo Stove Co., of Kalamazoo, Mich. Write today—get your stove before prices advance. Ask for their catalog No. 416.

## Special Notices by A. I. Root

### GOATS, GOAT PERIODICALS, AND GOATS FOR SALE.

There have been so many inquiries since our article that we wish to inquire if somebody can tell us about the goat periodicals; and will somebody who has goats for sale put a short notice in our advertising columns to answer inquiries?

### THE BOOK "GARDENETTE" CLUBBED WITH GLEANINGS.

See what is said about this book on page 1093. We have an arrangement with the publishers whereby we can offer the paper edition together with GLEANINGS for one year for \$1.40. The book sells for 60 cents. The cloth edition is later and much larger, containing 133 pages, while the paper-bound edition has only 64. This larger and later edition will be furnished together with GLEANINGS for \$1.75. The price of the book alone is \$1.25.

## HONEY MARKETS

### BASIS OF PRICE QUOTATIONS.

The prices listed below, unless otherwise stated, are those at which sales are being made by commission merchants or by producers direct to the retail merchants. When sales are made by commission merchants the usual commission (from five to ten per cent), cartage, and freight will be deducted; and in addition there is often a charge for storage by the commission merchant. When sales are made by the producer direct to the retailer, commission and storage and other charges are eliminated. Sales made to wholesale houses are usually about ten per cent less than those to retail merchants.

ST. LOUIS.—Prices are unchanged since our last quotations. The demand for extracted honey has been very good, but comb honey is moving rather slowly owing to warm weather. Our market is plentifully supplied with comb honey, but is in good shape for shipments of southern honey. We quote extra fancy comb honey, per case, \$3.75; fancy, \$3.50; No. 1, \$3.00 to \$3.25; No. 2, \$2.50 to \$2.75. White extracted honey brings 9 cts.; light amber in cans,  $7\frac{1}{2}$  to 8 cts.; amber in cans, 6 $\frac{1}{2}$  to 7 cts.; in barrels, 5 $\frac{1}{2}$  to 6 cts.; clean average yellow beeswax brings 30 cts.

R. HARTMANN PRODUCE CO.

St. Louis Mo., Nov. 6.

SABINAL.—The honey is just about all in, also out. The last honey was disposed of as fast as could be gotten ready for the market by beekeepers of this section, also at one and two cents better than the prices for earlier honey, notwithstanding the earlier honey was of better grade. We quote No. 1 comb honey, per case, 10 to 11 cts. in two 60-pound cans; No. 2, amber bulk in two 60-lb. cans, 7 to 9 cts. Light-amber extracted honey, in cans, 8 to 9 cts.; amber, in cans, 6 to 8 cts. Clean average yellow beeswax brings 26 to 28 cts.

Sabinal, Texas, Nov. 6.

J. A. SIMMONS.

DENVER.—Comb honey in carlots moves slowly, but extracted in carlots is in very active demand. Comb honey graded by Colorado rules is sold in a local way at the following jobbing prices per case: Fancy white, \$2.97; No. 1 white, \$2.84; No. 2, \$2.70. White extracted, 8 to 8 $\frac{1}{2}$ ; light amber,  $7\frac{1}{2}$  to 8 1/3. For clean yellow beeswax we pay 26 cts. per pound in cash, and 28 in trade, delivered here.

COLORADO HONEY-PRODUCERS' ASS'N.

Denver, Colo., Nov. 8

PORTLAND.—No great demand for comb honey. Conditions are much the same as previously reported. Extracted honey is moving very slowly. Last season's holdings are about cleaned up. We quote extra fancy comb honey, per case, \$3.50; fancy, \$3.25; No. 1, \$3.00; No. 2, \$2.75. White extracted brings 9; light amber, in cans, 8; amber, in cans, 7. Clean average yellow beeswax brings 26.

Portland, Ore., Nov. 6.

PACIFIC HONEY CO.

ALBANY.—Demand is very good. Receipts are heavy, and market weak; crop is a large one, especially light and mixed grades. It is not practical or proper to sell comb honey (of necessarily uneven weight) by the case, but by weight, gross and tare. We quote fancy clover comb, 15; No. 1, 13; No. 2, 11 to 12. White extracted, 8; light amber in cans,  $7\frac{1}{2}$ ; amber in cans, 7. Clean average yellow beeswax brings 32 cts. per lb.

Albany, N. Y., Nov. 9.

H. A. WRIGHT.

CHICAGO.—There are free offerings of comb honey, yet it sells at fairly steady prices. We quote extra fancy, per lb., 15 to 16 cts.; fancy, 15; No. 1, 14; No. 2 out of condition, 10 to 13. White extracted honey brings 8 to 9 cts.; light amber, in cans, 7 to 8 cts.; in barrels, 6 to 7 cts.; amber, in cans, 6 to 7 cts.; in barrels, 5 to 6 cts. Clean average yellow beeswax brings 32 cts.

Chicago, Ills., Nov. 9. R. A. BURNETT & CO.

LOS ANGELES.—Our stock of extracted is almost exhausted. There is a large stock of comb looking for a fair market, mostly in hands of producers; quality fair. We quote extra fancy comb honey, per case, \$4.25; fancy, \$3.85; No. 1, \$3.25; No. 2, \$2.50. White extracted honey brings 8 $\frac{1}{2}$  cts.; light amber, in cans, 8 cts.; amber, in cans, 7 cts. Clean average yellow beeswax brings 35 cts.

Los Angeles, Cal., Nov. 9. GEO. L. EMERSON.

KANSAS CITY.—Demand is limited on account of warm weather, and trade being supplied to a great extent by local beekeepers. With cold weather we look for a better demand. We quote fancy comb honey, per case, \$3.00; No. 1, \$2.90; No. 2, \$2.65 to \$2.75. Light-amber extracted, in cans, brings 8 $\frac{1}{2}$  cts.; amber, 8 cts. Clean average yellow beeswax brings 25 cts.

C. C. CLEMONS PRODUCE CO.

Kansas City, Mo., Nov. 6.

HAMILTON.—Honey of fine quality is still coming in. Some dark honey is still coming in at lower prices. Demand is good. We quote extra fancy comb honey, per case, \$2.50 per dozen; fancy, \$2.25; No. 2, \$1.50. White extracted, per lb., 12 cts.; amber, in cans, 10 cts.

F. W. FLEARMAN CO., LTD.,  
MacNab Street Branch.

Hamilton, Ont., Nov. 6.

DETROIT.—Comb honey is in good demand. It is slow coming in. Stocks on hand are light; plenty offered. Extracted also is in good demand. We quote extra fancy, per case, 15 to 16 cts.; fancy, 14 to 15 cts.; 13 $\frac{1}{2}$  to 14 cts.; white extracted brings 8 to 8 $\frac{1}{2}$ .

F. R. REYNOLDS & CO.

Detroit, Mich., Nov. 7.

PHILADELPHIA.—We have nothing new to report on comb honey. We could move some good extracted honey in 60-lb. tins. We quote white extracted, per lb., 8 $\frac{1}{2}$  to 9 cts.; light amber, in cans, 7 to 7 $\frac{1}{2}$  cts.; amber, in cans, 6 to 7 cts. Clean average yellow beeswax brings 28 to 30 cts.

Philadelphia, Pa., Nov. 6. CHAS. MUNDER.

BOSTON.—Demand is good; stock is moving freely. We quote extra fancy comb honey, per case, \$3.75; fancy, \$3.50; No. 1, \$3.00; No. 2, \$2.25 to \$2.50. White extracted, per lb. brings 10 $\frac{1}{2}$  to 12 cts.; light amber, in cans, 8 to 9 cts. Clean average yellow beeswax brings 28 to 30 cts.

Boston, Mass., Nov. 7. BLAKE, LEE & CO.

BUFFALO.—Receipts are more liberal this week, but still light for the season of year. Stocks are well cleared, and not much accumulation on the market. We quote extra fancy comb honey, per lb., 15 $\frac{1}{2}$  to 16 cts.; fancy, 15 cts.; No. 1, 14 $\frac{1}{2}$  to 15 cts.; No. 2, 13 to 14 cts.

Buffalo, N. Y., Nov. 9. GLEASON & LANSING.

CLEVELAND.—Demand fair at quotations. Supply in our market not very heavy. We quote fancy, per case, \$3.85 to \$4.00; No. 1, \$3.65 to \$3.75; No. 2, \$3.00 to \$3.50.

Cleveland, O., Nov. 10. C. CHANDLER & SONS.

PITTSBURG.—Conditions are practically the same as per our report of Oct. 25, with a slightly improved demand, with no change in prices.

Pittsburg, Pa., Nov. 9. W. E. OSBORN CO.

TORONTO.—Prices are unchanged since last issue. Comb honey which is now on the market sells as follows: No. 1, per case, \$2.40 per doz.; No. 2, \$2.25.

EBY-BLAIN LIMITED.

Toronto, Ont., Nov. 6.

MATANZAS.—Light-amber honey in barrels brings 46 to 47 cts.; amber, in barrels, 46 to 47 cts.

Matanzas, Cuba, Nov. 4. A. MARZOL.

MEDINA.—Comb-honey offerings continue from unexpected quarters, with prices easy. Extracted honey in the West has passed into the hands of dealers for the most part, and is now offered only at advanced figures. Eastern markets are also improving.

THE A. I. ROOT CO.

Medina, O., Nov. 10.



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Mail  
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See new styles—unbeatable quality at manufacturers' money-saving prices. Cash or easy payments. We pay freight and ship within 24 hours. 30 days' trial—360 days' approval test, \$100,000 Bank Bond Guarantee. Write today. Ask for Catalog No. 416

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you must create and sustain a demand. . . Nothing better for this purpose than our stickers.



Printed on high-grade gummed paper, with a rich red ink, they will add to the appearance of your stationery. . . 35c per 1000 postpaid.

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An ideal combination for the small-place owner. Gleanings in Bee Culture, Green's Fruit Grower, and American Poultry Advocate are the highest authority on these three subjects. Then why not take advantage of our low-price clubbing offer of all three journals for one year for only \$1.00? . . . Write today.

Gleanings in Bee Culture  
Medina, Ohio

# YOU DON'T WAIT FOR MONEY WHEN YOU SHIP MUTH YOUR HONEY

We Remit the Day Shipments Arrive.

We are in the market to buy FANCY AND NUMBER ONE WHITE COMB HONEY, in no-drip glass front cases. Tell us what you have to offer and name your price delivered here.

Will also buy—

White Clover extracted and Amber extracted.

A few cars of California Water White Sage.

A few cars of California Orange Blossom.

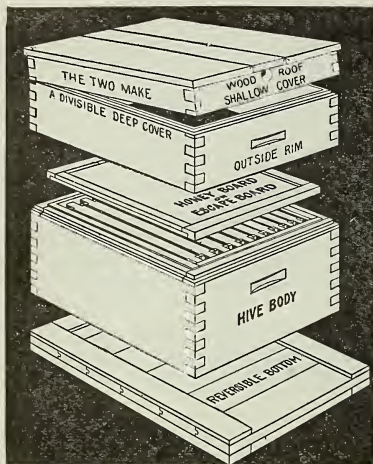
When offering extracted honey mail us a sample and give your lowest price delivered here, we buy every time you name a good price.

We do beeswax rendering; ship us your old combs and cappings. Write us for terms.

**THE FRED. W. MUTH CO.**  
"THE BUSY BEE MEN"

204 Walnut Street.

CINCINNATI, O.



## PROTECTION HIVES

Price: \$14.75 for five hives, delivered to any station in the U. S. east of the Mississippi and north of the Ohio River, or \$13.00 F. O. B. Grand Rapids, Mich. Prices will have to be advanced slightly January 1.

Air spaces or packing as you prefer. Seven-eighths material in the outer wall, which means that they will last a lifetime. Used and endorsed as the best hive on the market by many prominent beekeepers of this and other countries.

Norwichtown, Conn., May 24, 1915. (Extract from letter and order) Our State Agricultural College has just been voted a sum of money to be used in the construction of an apiarian building and outfit. They are negotiating with me for some colonies, and I will furnish them in your Protection Hives, for I believe them to be the best on the market.

ALLEN LATHAM.

Send for catalog and special circulars. We are the bee-hive people. Send us a list of your requirements for 1917 and let us figure with you. We want both large and small orders. We have many pleased customers in all parts of the country.

A. G. Woodman Co., Grand Rapids, Mich.

### PENNSYLVANIA BEEKEEPERS

Our 1916 catalogs now out. Postal will bring you one. Root's goods at Root's prices. Prompt shipment.

E. M. Dunkel, Osceola Mills, Pa.

## LOS ANGELES HONEY CO.

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Write Us for Prices when in the Mar et



Established 1885

Send for our 64-page free catalog of Beekeepers' Supplies—full of information regarding bee fixtures, etc. Beeswax wanted for supplies or cash.


John Nebel & Son Supply Co., High Hill, Mo.  
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### "Best" Hand Lantern



A powerful portable lamp, giving a 300 candle power pure white light. Just what the farmer, dairyman, stockman, etc. needs. Safe—Reliable—Economical—Absolutely Rain, Storm and Bug proof. Burns either gasoline or kerosene. Light in weight. Agents wanted. Big Profits. Write for Catalog. **THE BEST LIGHT CO.**  
306 E. 5th St., Canton, O.

**BEE SUPPLIES** Send your name for new 1916 catalog.  
Dept. T, CLEMONS BEE SUPPLY CO.,  
128 Grand Avenue, Kansas City, Mo.



### BEESWAX WANTED

for manufacture into  
"SUPERIOR FOUNDATION"  
on shares (Weed process)  
Our terms assure cheaper foundation  
SUPERIOR HONEY CO., Ogden, Utah  
Wanted: Extracted honey

## HONEY-JARS

No. 25 1-lb. screw-cap, \$5.00 a gross. 1/2-lb. screw-cap jars, \$4.25 a gross. Discount on quantity.

### HONEY

We have a fair stock of both extracted and comb honey. Price on application. If you have honey to sell, write us. Cat. of apiarian supplies and bees free.

I. J. STRINGHAM, 105 PARK PLACE, N. Y.  
Apiaries: Glen Cove, L. I.

## CANDY

Bees sometimes starve with plenty of honey in the hive. Why not avoid this risk by placing a plate or two of candy on the frames when you pack for winter. It is a good life insurance. Send for circular also catalog of supplies.

H. H. Jepson, 182 Friend St., Boston, Mass.

**PATENTS** Practice in Patent Office and Courts  
Patent Counsel of The A. I. Root Co.  
Chas. J. Williamson, McClachlan Building  
WASHINGTON, D. C.



# Seasonable Goods . . . . .

- Tenement Winter Cases
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- Shipping Cases
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Four per cent Discount on Goods for Next Year's Use

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Mention "Gleanings"

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remember we carry a full stock and sell at the lowest catalog price. Two lines of railroad—  
Maine Central and Grand Trunk.  
Prompt service and no trucking bills.

**THE A. I. ROOT CO., Mechanic Falls, Maine.**  
**J. B. MASON, Manager**

# WHY NOT

## Order Your Supplies for Next Season Now?

This last season was an unusual one and beekeepers felt the need of supplies during the honey season. It meant a loss to them if not on hand. Freight this year has been slow for some reason. Why not be forehanded and have the goods on hand when wanted? We try to get goods off promptly but the railroads were slow in making delivery—a month or more in some instances. Goods ordered now carry 4 per cent discount during October. Send in your order just as soon as you find out just what you require and we will take care of it promptly.

**F. A. SALISBURY, Syracuse, New York**  
1631 West Genesee St.

## HOW ABOUT NEXT YEAR?

The season of 1916, just closed, has been a most unusual one. Beekeepers who did not fortify themselves early in the season by securing their hives, sections, and other goods, and having their equipment ready for the bees, found when the honey season was upon them that they were up against the following conditions:

Everybody wanted bee goods, dealers had depleted stocks on account of the unusual demand, manufacturers were several weeks behind on orders, their factories were working overtime. Some beekeepers were delayed, some disappointed, some got their goods when it was too late.

### Now, Mr. Beekeeper, What are You Going to do about Next Season? ? ?

Prospects for a big Bee and Honey Season next year were never better than they are right now. PREPARE! Order your goods this fall. Write us or our dealer nearest you for a list of new prices owing to advances in raw material.

If you are not on our mailing list, write us at once and we will send you a catalog containing name of the distributor nearest you, and in this way you will also be sure to receive a copy of our new 1917 catalog when it is issued.

**Lewis** Hives and Sections and all other goods are made from the best material and are scientifically manufactured.

#### OUR GUARANTEE.

We absolutely guarantee our goods to be perfectly manufactured of the best material for the purpose. On examination, if our goods are not as represented, we do not ask you to keep them. Return same at our expense, and we will refund your money, including any transportation charges you have paid. If you purchase our goods from one of our distributors, this same guarantee holds good, as we stand back of them.

**G. B. Lewis Company, Watertown, Wisconsin, U. S. A.**

Send for catalog giving name of distributor nearest you.

## DON'T FUSS

With your old combs and cappings, but send them to us. We will render them into beeswax for you on shares and pay you cash for your share, or we will make it into

### Dadant's Foundation

for you.

If you prefer, we will pay you our best trade price in exchange for BEE SUPPLIES.

Send for our terms. We feel sure that we can save you some money besides saving you a "mussy" job.

**BEE SWAX WANTED** at all times.

**Dadant & Sons, Hamilton, Illinois**

# GLEANINGS IN BEE CULTURE

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## EDITORIAL

PROF. FRANCIS JAGER, elected president of the National Beekeepers' Association at the last meeting in Chicago, is a live wire. He outlines some policies that will mean the development not only of the organization itself but of the industry at large.

### Lack of Rains in the Clover Belt

THE United States weather maps which we are getting daily, while they do not indicate a dry soil for clovers, yet show that the rainfall thruout the eastern states has been rather light. It is to be hoped that this will be followed by snows in winter and rain next spring. Clovers are still in good condition in our locality, and the enormous yield of white clover and alsike last year will mean a good seeding for next season.

### Bee Inspection in Connecticut

FROM Part 6 of the annual report of the Connecticut Agricultural Experiment Station for 1915, we learn that, during the year, 494 apiaries were inspected, containing in all 4241 colonies. In 26 per cent of the apiaries European foul brood was found. In 8-10 of 1 per cent American foul brood was found. Pickled or sacbrood was found in ten apiaries. The total cost of inspection was \$1.51 per apiary.

### Our Cover Picture

A VERY enthusiastic backlotter is L. C. Green, Albany, Cal., whose backyard apiary is shown on our cover for this issue. We judge that Mr. Green is also quite a poultry man, tho he prefers the bees. Quoting from his letter he says:

"Talk about your suburbanites having vegetable gardens, chickens, rabbits, etc., to while away their spare time and help out on the high cost of living. Bees exceed them all for pleasure and profit so far as I am concerned, and I have tried them all. I

am as enthusiastic now as my brother from whom I caught the bee fever, and I can talk nothing but bees. My wife says, 'Bugs.'

"I started in the spring of 1914. I made arrangements to purchase one colony; but the party from whom I was to get it telephoned to me saying that this colony had now swarmed and if I wanted them both I would have to pay \$5.00 more. That was making money fast, wasn't it? I said I guessed I would not take the bees at all, but finally I was told to come and get the two at the original price."

### Diagnosing Without Removing Frames

WHILE it is true, as our correspondent, Mr. Chadwick, points out, in this issue, page 1064, that diagnosing colonies without moving frames might be a bid for carelessness, if he will look back to what we said on page 776 he will see that that method of determining the condition of a colony was not recommended for beginners. The exact methods for accomplishing these results are shown in the A B C and X Y Z of Bee Culture under the head of "Frames, to Manipulate."

### How to Get Rid of Cross Pesterer Bees

MR. CARMONA, in this issue, page 1083, gives a kink of the trade that is worth knowing. Every now and then there will be a few cross bees that will follow one about the yard for an hour at a time. They are hard to hit with the hands, and they compel one to be ever on the alert, and always keeping the veil drawn down over the face, no matter how hot the day. Mr. Carmona offers a remedy that we feel sure is quick and effective. Try it.

### Foul-brood Law for New South Wales

SECTION 1 of the foul-brood law for New South Wales, and mentioned on page 1087, shows a feature that should merit the atten-



tion of the beekeepers of this country. If every beekeeper in every state were compelled to make out a report of the conditions of his colonies, and particularly whether they have any bee disease, it would assist the bee inspectors materially in their work. Perhaps such a provision would not be practicable in this country; but if every beekeeper were compelled to make a report whether he had bee disease or not, and failing to make such report would be subject to a fine, it would save the bee inspectors from going over territory that is probably clean, and direct them at once to the diseased spots.

### Government Figures on the Honey Crop for 1916

FROM the Monthly Crop Report published by authority of the Secretary of Agriculture, Washington, D. C., we find on page 91 of the September issue a table of average yields of surplus honey per colony, spring count of 1916, up to September 1, as compared with 1915 to the same time: Connecticut, Virginia, West Virginia, North Carolina, Georgia, Minnesota, North Dakota, Alabama, Montana, Wyoming, Arizona, Idaho, Oregon, and California show a smaller crop than in 1915. All the rest of the states show a larger crop with the exception of Rhode Island and Wisconsin, which show the same average crop both years. The states which show the greatest increase over last year are New Jersey, Maryland, Ohio, Indiana, and Illinois.

### Beekeeping for Pleasure as well as for Profit

IF there is any place in Uncle Sam's domains where bees can be kept for *pleasure* as well as profit it is along the Florida rivers, particularly the Apalachicola, St. John's, and the Indian rivers. It is just fun to run back and forth to the outyards on the river banks in that mild and salubrious climate; and while the keeping of bees along these rivers may not mean a large profit it will mean renewed health and a new life. On the St. John's and Indian rivers, the apiaries will necessarily be small—a few colonies at a place. As we go further south toward the Florida Keys the yards may be larger.

The pictures by C. H. Clute in this issue, pages 1069 and 1070, bring back to the editor pleasant memories of when, three years ago, he was fighting chills and fever, and when he got back his health. There is some-

thing besides dollars in this world; and the biggest asset one can have is good health, no matter what it costs. The editor has not found it necessary, like Ponce de Leon, to *hunt* for the fountain of eternal youth in Florida. He found it on these rivers.

### Outdoor versus Indoor Wintering

WHILE the tendency seems to be decidedly toward outdoor wintering as mentioned in our issue for Nov. 1, page 1011, some figures presented by our old friend Doolittle on page 1066 of this issue would seem to argue very strongly for cellar wintering. According to Doolittle's figures the consumption of stores by colonies indoors is less than half of those outdoors. Other investigators made similar comparisons in former years and discovered about the same ratio. Were it not for the fact that the colonies wintered outdoors are in many cases considered to be an advance over those wintered indoors, every one would use cellars where the climate is severe enough. Canadian beekeepers are inclined to believe that, in spite of the larger consumption of stores, the outdoor bees are enough ahead to make up the difference. Or, to put it another way, the outdoor colonies it is believed will have a larger force of young bees for the harvest. A colony that is strong enough to gather 100 lbs. of honey may be worth the extra stores.

The exact relative difference in honey producing between an outdoor and indoor wintered colony has never been tested out experimentally. We hope some experiment station will try this out on two groups of 25 or 50 colonies so as to get an average.

### A Chain of Bee Conventions

A CHAIN of bee conventions will be held in Kansas Nov. 20 and 21; Indiana, Nov. 27, 28; Ohio, Nov. 29, 30; Michigan, Nov. 30, Dec. 1 and 2; Chicago-Northwestern, Dec. 4, 5; Minnesota, Dec. 5, 6; Iowa, Dec. 5, 6; Wisconsin, Dec. 7, 8; Ontario, Dec. 12, 13, 14; Idaho-Oregon, Dec. 5, 6.

The Kansas meeting will be held at Topeka. Secretary, O. A. Keene.

The meeting in Indiana will be held at the State House, Indianapolis.

The meeting in Michigan will be held at Lansing. A banquet will be given by the A. I. Root Co. and M. H. Hunt & Sons. See Convention Notices.

The meeting of the Chicago-Northwestern will be held in Chicago, Great Northern Hotel; John C. Bull, secretary.

The meeting in Iowa will be held in Des Moines, Hamlin R. Miller secretary.

The convention in Ontario will be held in Toronto, Morley Pettit secretary.

The Michigan beekeepers are making great plans for a big convention—probably the largest bee convention held in this country this year.

The Wisconsin meeting will be held at Madison, Gus Ditmer secretary.

Idaho-Oregon will be held at Ontario, Oregon, P. S. Farrell secretary.

Announcement in regard to the place of the Ohio convention has not yet reached us.

Dr. E. F. Phillips and E. R. Root expect to attend some of these conventions. Unfortunately the dates conflict in some cases, as will be seen. The Editor will not be able to attend the conventions of Kansas and Idaho-Oregon and perhaps those where the dates conflict.

For other convention notices see Convention Notices.

### The Dark Side of Beekeeping

YEARS ago, in the early days of this publication, we used to carry departments known as the Growlery and another as Blasted Hopes, to represent certain gentlemen of the cantankerous or those who suffered from a bad winter, a poor season, or a poor locality. The Blasted Hopes fellows did not see anything very attractive in beekeeping. They were going out of the business, and were anxious to pay their departing respects to their brethren of the craft. The cantankerous didn't like the publicity, and so we discontinued those departments.

Our correspondent, Mr. Closson Scott, page 1074, apparently is not afraid of telling his failures, and he does it with severe frankness. Altho some of our subscribers have done remarkably well during the past season, and have secured big crops, and while a few of our backlot friends have cleaned up \$5.00 and \$10.00 per colony, it may be well for us to consider that there are some others who have not cleaned up anything—in fact, they are out of pocket.

Mr. Scott has correctly diagnosed the cause of his failure or failures—namely, the poor locality. By looking up the map we find that his portion of Ohio is not a good bee country; indeed, one of the best beemen in the state, twenty miles east of him, after securing for a series of years some very low averages, decided to move to a better locality. He moved on a straight line west into the northwest part of the state, and now he is getting good averages. He is well pleased. We might suggest to our correspond-

ent that he move also; for evidently he does not lack in experience; but, no matter how much he may know about the production of honey, he cannot get it if it is not in the fields.

### Honey Crop Conditions and Prices

IT is apparent that the general market shows that *extracted* honey is improving everywhere. It is equally apparent that there has been a very large crop of *comb* honey; and as a consequence the market on this commodity is easing up. It has, in fact, been low all this season. See Honey Market.

Our readers will remember that last winter and last spring we cautioned producers not to run so much to comb honey, as there was such a large supply left over. We were severely criticised at the time for doing so; but the logic of events, and low prices on comb honey during the past summer and fall, with prospects that they may go lower, show that if producers had heeded our advice, and run more for extracted, the market on comb honey, at least, would have been better, without any injury to the price of extracted.

We hardly know what advice to give for next year. It is our opinion that the lower prices on comb honey will induce beekeepers to run largely for extracted next season. This will be a mistake. There will be enough producers dropping comb-honey production without every one making a grand rush for the extractor. Here is a case in point. Last year potatoes were comparatively low—so low, indeed, that farmers this year decided to put their land into wheat and corn. What has been the result? A light crop of potatoes, with prices ranging from \$1.80 to \$2.00 a bushel, with every indication that they will go higher before next year's crop will be available.

#### THE BOTTLE TRADE ON THE INCREASE.

Fairly reliable information goes to show that there will be a larger consumption of honey this year than was ever known before in the history of the United States. Honey in bottles is coming more and more into demand. It will soon be time to develop the trade, if it has not already arrived, of honey in tins in 3, 5, and 10 lb. sizes. The bottling trade is stimulating the demand for liquid honey; and the good housewife will see that it will be cheaper to buy in tins than in glass. It will not be many years before the average family will begin to lay in its supply of extracted honey in 60-lb. cans. Many of them are doing it now.



The supply of maple syrup is growing smaller and smaller. The demand for good table sweets in the mean time is growing larger and larger. While the glucose concoctions can supply a certain cheap trade, it is evident that the average family wants something of a higher grade. Honey is the only available article that can be obtained in quantity.

#### PRICES ANOTHER YEAR.

It is apparent that honey prices are bound to advance another year. GLEANINGS believes that the beekeeper should not only get more for his honey, but that the consumer should pay correspondingly more for it. Our general campaign of advertising is beginning to have its effect; for we are now in possession of reliable information that shows that the trade in bottled honey is beginning to assume enormous proportions. If some of the beekeepers of the country could know the amount sold by the various bottlers they would be surprised. While production is on the increase enormously, it has not kept pace with the demand; and had there not been a very large production in the eastern states this year, honey would have advanced like all other food commodities; and it is almost sure to do so another season.

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### Regulations Relating to the Export of Honey from New Zealand

GLEANINGS is indebted to Mr. Isaac Hopkins, of Auckland, N. Z., for an extract from the *New Zealand Gazette*, for Nov. 25, 1915. The reprint consists of an order in council for some regulations on honey exports, which went into effect the first day of December. In more than one instance American beekeepers have observed that progressive New Zealand is not one whit behind the times.

There are twenty-one regulations in all, but lack of space prevents giving more than a summary of these. The first six regulations define the terms used, specify the six ports from which honey may be exported, and paragraph No. 4 gives the name of the store at each of the six points in question. Honey intended for export has to be forwarded to one of the appointed stores not less than seven days before shipment. Where there is a noticeable difference in the standard of honey the owner is obliged to submit such honey in separate parcels with a distinguishing mark on each. No honey will be graded or allowed to be exported unless it is granulated.

Regulations 7 and 8 have to do with the method of packing the honey and the branding. Honey intended for export has to be packed in clean tins, lacquered or oiled on the outside to prevent rusting, each tin to be provided with a leak-proof lid capable of being easily removed and replaced. The tins have to be packed in clean new cases of well-seasoned lumber, planed on the outside, and bound with metal straps or wire. The weight of the honey must not exceed 120 pounds net.

The owner must indelibly brand with the approved export brand, which contains the words "New Zealand Produce—Pure Honey," name of the owner, etc. The net weight of the honey also has to be branded on the cases.

Regulation 9 has to do with the securing of application for export of the Director, etc.

Most of the remaining regulations have to do with the grading. The honey is divided into four classes according to color: White, light amber, medium amber, and dark. The system of grading is based on the following points:

Flavor .....	40 points
Color .....	10 "
Condition .....	15 "
Grain .....	12 "
Aroma .....	8 "
Freedom from seum and froth.....	10 "
Packing and finish .....	5 "

Total .....100 points

The A, or Special grade, is the honey which grades from 94 to 100 points, inclusive; B, or Prime grade, 88 to 93½ points; C, or Good grade, 80 to 87½ points; D, or Manufacturing grade, 65 to 79½ points. No charge is made for the grading. The grader stamps a grade-mark on the cases and delivers to the owner a certificate of the grade. No honey can be exported which scores less than 65 points, and, of course, any tins showing signs of leaking are barred. The decision of any grader is held final, and no action against any grader is permitted.

New Zealand cannot consume all of the honey produced. That much of it must be exported is, therefore, a foregone conclusion. Under these conditions a uniform system of grading becomes a very real necessity. Honey-producers of this country, however, may profitably take notice of this forward step of the New Zealand members of the craft, for the great drawback to honey-selling in the United States is carelessness in grading and the lack of a uniform system of grading.



Dr. C. C. Miller

## STRAY STRAWS

Marengo, Ill.



FOR feeding as late as Oct. 15, a syrup of two parts sugar to one of water is recommended, p. 988. Isn't  $2\frac{1}{2}$  to 1, as given p. 963, better? [In your locality, yes; in ours, 2 to 1 would be strong enough.—Ed.]

"A queen not showing sufficient strength to resist European foul brood in the start is not worth any future trials against the disease," p. 967. That may be true in Mr. Meeker's locality; but in my locality the disease may appear in a colony with an excellent queen, and caging her upon first attack is the very best treatment.

LAST Temperance Sunday my Sunday-school class of men thought it might be well to vote the Prohibition ticket, only they couldn't think of losing their votes. "Suppose," said I, "an election were to decide whether Marengo was to have saloons, and you were sure the town would go wet, which way would you vote?" "If I were the only one to vote that way," said one, "I'd vote for a dry town." "How about voting for a dry president?" said I. A surprised look went around the class, and one of them with a sheepish grin said, "You've got us."

You ask, Mr. Editor, p. 966, whether lime, sodium, etc., should not be considered with iron in honey. Sure; and if you will turn to p. 841, the place that I suppose started your query (p. 837) whether I was not attaching too much importance to iron, you will see I said "iron and other matters." I'm entirely with you that *all* the things you mention; in which honey excels sugar, should be kept before the public constantly, and I'm glad of this opportunity again to stress the minerals in honey, not because more important than other things you mention, but because the public—and possibly some editors—don't realize that elements minute in quantity may be greatly important. [We give up. Guess you're right.—Ed.]

I SAID it was a physical impossibility for bees to build comb with worker-cells one side and drone on the other. Now, what does that troublesome Allen Latham do but send me a sample of the "physical impossibility," a plain case of drone on one side and worker on the other? He says: "The explanation is simple. Whenever bees work out only one side of a sheet of foundation and put honey in those cells before the other side is worked out, then the other side will more often than not be more or less

drone. I have seen hundreds of sections where this occurred. It is doubtful if it ever occurs in natural comb-building." That leaves it still unexplained how bees can build drone-cells on a worker-base. Examination of the sample shows that they didn't do so in this case, for the base is neither drone nor worker, but *flat*. Either he uses foundation with a flat septum, or else his bees have the trick of flattening it. I've seen many thousand sections, many of them with one side built out first, but never observed a single case like the sample sent. I shall have to modify my statement by saying it is a physical impossibility for *my* bees to build worker-cells on one side and drone-cells on the other side of a natural base. But I'm not responsible, Allen, for what fool things your bees may do.

ARTHUR C. MILLER, you take sides against me, p. 932, for criticising one who said "there is no need of having a queen a year old to determine if she is a good breeder." Please look again at that Straw, p. 139, and you will see that the thing I was objecting to was making prolificacy the only point in choosing a breeder, the statement having been made "that there was no need to have a queen a year old before deciding whether she would be good to breed from, for we could tell before she is three months old what kind of a layer she would be." You would object to that yourself, for you say "my queens are at least eight months old before I pick the breeders." But you have some right to object to the unqualified statement I made: "I don't see how I can estimate a queen's value until she is more than a year old." For that might be understood to mean that no one in any case could judge a queen under a year old. Here's my ground: I cannot know the value of a queen until she has been in the hive *from the very beginning of the season until the close of the honey-flow*. Likely enough you would agree on that. If your queens are only eight months old at the close of the honey-flow, then eight months is old enough to judge. My honey-flow closes toward the last of September. At that time some of my queens are only a year old, possibly less. But the greater part of those that began the season are more than a year old, and I must know the rating of a queen *in comparison with others*. So I should have said: I don't see how I can estimate the relative standing of a queen until my queens average more than a year old. Say, Arthur, let's be friends again.

J. E. Crane

## SIFTINGS

Middlebury, Vt.



Honey seems to be moving more readily than a year ago, notwithstanding the larger crop.

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"European foul brood is a respecter of persons," says Wesley Foster, page 910, Oct. 1, and he is right.

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An item in a recent number of the *Rural New-Yorker* speaks of the great value of sweet clover in subduing Canada thistles.

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Arthur C. Miller's observation and explanations, pages 931, 932, Oct. 1, are so entertaining and enjoyable that I honestly believe it pays to stir him up occasionally.

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I was glad to learn from GLEANINGS, Oct. 1, page 903, that glass is being eliminated from section honey. It always seemed to me a swindle to sell so much glass for honey.

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That is not a bad idea of Dr. A. F. Bonney on getting schoolchildren to write an essay on honey, and offering a prize for the best. We are certainly getting practical these days.

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Reference is made, page 902, Oct. 1, to wintering bees under snow. Our experience has been that the more snow about hives the better, providing the entrance slopes away from the hive so water will run away from the entrance.

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We have had fairly good success in introducing virgin queens into full colonies at once after removing the old queen, by Mr. Baldwin's method of immersing in honey and pouring down honey with the queen. I believe this method is going to prove of great value where we wish to supersede old queens.

\*\*\*

It has been a lot of work to weigh every section of our honey this fall, and place the different weights in several different grades; but it is something of a pleasure to know that every buyer will get every section in the same case of the same weight and quality. Another thing I notice, 11 and 12 ounce sections of honey look much better when packed by themselves than when packed with heavier honey. Small apples by themselves may be No. 1; but packed

with large apples they are most emphatically *culls*.

## HOW DANGEROUS IS SACBROOD?

Prof. Burton N. Gates calls our attention, page 913, Oct. 1, to the great loss to beekeepers from sacbrood, a subject of more than ordinary importance. The whole subject of sacbrood is usually treated as a small matter, and dismissed as "nothing but a little sacbrood." The facts are, it is always a serious drawback to the prosperity of a colony, and many times nearly as destructive as American foul brood. While it is thought to be of small consequence, we could hardly expect much interest to be taken in any remedy that might be offered. The disease has such an elusive character of appearing and disappearing that any attempt to cure it has seemed like fighting the air. Some years we have not found half a dozen cells of it, and again it has interfered seriously with the success of many colonies. One beekeeper I know destroyed the old combs in one hundred colonies in one season to get rid of foul brood, and very successfully, too; and the next season I believe half of the hives contained sacbrood. Where did it come from? I don't know. I have sometimes thought we were more apt to find it in new combs than in old, so that there would seem to be a poor show of cleaning it out by shaking on to foundation. Where we have had very bad cases of it we have of late sometimes broken them up, destroying the combs.

With this disease, as with European foul brood, I believe we shall find the most satisfactory treatment in removing the queen where there is a serious loss from it, and requeening with more resistant strains.

Sacbrood is often mistaken for foul brood. While writing the above paragraph on sacbrood I received a letter from Mr. Ivan Robinson, of Pembroke, N. H., saying he had found some very suspicious-looking brood in one of his hives that he feared might be foul brood, as the colony had dead brood, and had failed to store much honey. He had destroyed every bee with brimstone, and put the honey in a safe place. Later I received a sample of the brood, which proves to be sacbrood. The sample of brood received was in this year's comb; and if he had destroyed only the queen, and had given another of resistant quality, he might have had a good colony another year, free from disease. I cannot help admiring his thoroughness, however.



# BEEKEEPING IN THE SOUTHWEST

Louis H. Scholl, New Braunfels, Texas



Some good fall rains have already fallen thruout the greater part of Texas. Fall and winter rains assure us better honey crops the following season, hence these are welcomed by the beekeeper.

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An enjoyable and profitable time was spent in a picnic by the members and friends of the Guadalupe Valley Beekeepers' Association on the grounds of the Bathing Beach on the Guadalupe River, near Seguin, Saturday, Oct. 14. It was the first attempt of this kind for this association, and it was so successful that another and much larger picnic of this kind will be held next spring. Besides "bee-talks" by several of the more prominent beekeepers, there were also demonstrations of a varied nature, in which not only the men but the ladies took part.

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Henry Brenner, of Seguin, Texas, has returned to Porto Rico, after a journey to those islands last spring. He reported excellent advantages existing there for extensive queen-rearing, having experimented along this line while there. His report was also that he was far more successful in his attempts there than under the conditions existing here in this part of Texas. The honey, however, was all rather dark in color in those localities visited by him at that time; but a peculiar feature connected with this is that the comb itself is all of the whitest kind. While the comb honey looks beautifully white from outside appearances the honey itself is very dark in these white combs.

## BEEKEEPERS MORE INTERESTED.

There has been a lack of interest on the part of the Texas beekeepers during the last several years that was beginning to tell. The individual beekeepers were plodding along their own narrow path and according to their own good will, little concerned about their fellow-men following the same pursuit. Producing their crops and marketing these without much regard for market and other conditions, there has arisen each season a crisis of low prices and deplorable market conditions.

With this regular annual recurrence, and its effect on the financial condition of the beekeepers there has awakened a deeper interest and a desire to take some steps that may aid in stemming the tide that was doing material harm. There now exists a

greater desire to do that which some of us tried to bring about years ago—co-operate and organize, and use united effort to a better advantage and benefit of every beekeeper and the beekeeping industry as a whole.

## LOSES ONLY TWO PER CENT IN MATING.

While visiting Mr. Henry Brenner, near Seguin, Texas, a few weeks ago, I was astonished at his success in rearing queens this summer. According to his statement he lost only about 2 per cent of queens failing to become mated, or out of a few over one hundred queens only three were not successfully mated. Two of these were drone layers, and one did not lay at all. The writer saw many of the queens after they had all been laying for several weeks, and their nuclei were quite strong with their own offspring. They were all reared from two selected yellow Italian breeding-queens that had shown excellent results as honey-storers and for other qualities.

All of these queens were mated in upper stories and over strong colonies of bees. A solid board partition cut off all communication between brood-chamber and nucleus. One comb of brood and honey and several combs containing more or less honey were placed in this upper story. Then a cupful or two of bees, previously prepared according to the Stachelhausen method, were poured on to the combs after a ripe queen-cell had been placed between two of the central combs. A hole bored thru the rear of the hive, somewhat toward the other wall of the hive from that near which the nucleus is located, provides an entrance for these bees.

An important item explained by Mr. Brenner is that of not using any division-board next to the outside comb of these nuclei to prevent the robbing-out of the nuclei as is so often the case. He states that if a division-board is used it provides a sort of ante-room in the vacant space between this board and the wall of the hive, into which the robbers will enter from the entrance hole; and, once inside this, they find it an easy matter to gain access to the nucleus proper. Without the division-board and the bees of the nucleus guarding the outside comb of the nucleus, the robber bees do not enter thru the entrance hole at all; and, consequently, he does not lose any of his nuclei by being robbed out.

His method of obtaining queen-cells and taking care of them seems rather unique also, and will be mentioned later.



# BEEKEEPING IN CALIFORNIA

P. C. Chadwick, Redlands, Cal.



The meeting of the San Bernardino County beekeepers held at Redlands, Oct. 7, was well attended, and was a success in general.

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Rains have continued to fall in rather generous amounts, totaling nearly four inches in some localities. This is very unusual for October. A dry winter is prophesied by many; but past weather records do not bear out the idea.

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The hive standard is pretty well established in the Langstroth size and should be maintained as the standard, but I am convinced that a deeper frame and not so many of them would make a more ideal hive and one better adapted to the needs of the bee.

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Breeding is at a very low ebb in this locality just now. Some colonies opened today, Oct. 30, contained not one cell of brood. This is due to the fact that just now is the period when there is perhaps less inducement to breed than at any other time of the year.

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The greatest objection to bee-escapes is that in hot weather there is danger of combs melting down, and in cold weather the honey gets too cold to uncap and extract readily. I have never found as satisfactory a way as to shake and brush the bees, then extract the combs at once while they are warm.

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Mr. Crane has discovered that bees work on the wild carrot; now if we could get them to work on the cockle burr we would have the most universal honey-plant in the United States, for I have found that old weed growing everywhere I have been thru all my travels, even on the dry foothills of California.

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If a colony of bees begins to "hang out" we may expect them to swarm, not because it is a necessary part of swarming, but because it is a sign that there is a surplus of bees. Swarming is nature's way of relieving the congested condition. Ventilation will retard swarming because it relieves the necessity of the bees moving out.

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Gasoline is excellent to use in smothering a colony. If your hive is tight-bottomed, pour it in the entrance and close it up

tight; all will be dead in a short time. Moths in a mass of webbed comb may be dispensed with quickly by pouring gasoline over it; the slightest bit touching a moth will kill it instantly.

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When hiring a man get one you can trust and then treat him like a human being. Good food and comfortable quarters gives a man self-respect as well as energy. I have little use for the attitude assumed by some men in this state toward their hired help. We are all human; and because a man is out of a job is no sign he is a bum. Even if he were he might be made a better man by kind treatment.

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In the October 15th issue Mr. Crane says: "A bee finding a scanty yield of nectar in the flowers of one apple-tree naturally flies to another, and in so doing it gives the best possible cross-fertilization." In this thought he is getting down to the real cause of swarming. I expect to submit an article on the cause of swarming soon, but that sentence touching this one thought will, in justice to Mr. Crane, be eliminated.

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The editor cites a case in the Oct. 15th issue where he moved bees less than a mile and not one bee returned to the old location. That is possible when moving even less distance, but it may or may not be because the bees have not traversed the territory. By confining bees to the hive, after moving them a short distance, for ten or twelve hours, then giving them an entirely new entrance there will be little trouble.

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The diagnosing of an apiary by simply lifting the hive and looking under, as recommended by the editor and endorsed by Mr. Byer, may be all right in some localities at some times; but some of the requirements necessary are not told, and it seems to me to be a bid for carelessness. Here in the West we have many beekeepers who would be prone to follow this kind of plan, even in some cases failing to lift the hives at all. Here also arises cause for the rapid spreading of disease in many localities. I will not commit myself by precept or example to a plan that will encourage the shiftlessness already far too common in this or any other disease-infested locality. Where there is a reason to suspect the presence of disease, careful inspection is necessary and should be encouraged to the greatest extent.

E. G. Baldwin

# FLORIDA SUNSHINE

Deland, Fla.



Further inquiries have come regarding bee-martins referred to on p. 716, Aug. 15. The bee-martins are king-birds which are fly-catchers. The scientific name is *Tyrannus tyrannus*, called also *Tyrannus Caroliniensis*, which is the true bee-martin or bee-bird; but several other species of the *Tyrannus* in the West and South are also called bee-martins or bee-birds, and many fly-catching and insect-eating birds are often misnamed bee-birds, tho not king-birds at all.

## MANGROVE AND PALMETTO ON THE EAST COAST.

The finest palmetto-mangrove honey we ever saw has been gathered by our winged friends this summer—not the largest in amount, tho the total is a fair crop, but the quality is about as fine a table honey as a connoisseur could want on his pancakes for breakfast. We use it (honey, not pancakes) for every meal. As before reported, palmetto lasted about twice as long as usual this year. Our own crop will be about four tons. The blending of the mangrove and the palmetto honey by the bees is unavoidable, as one bloom overlaps the other. But no matter. Both are light-colored, both mild-flavored. The mixture is a little finer than either one alone, for the pure mangrove has just the faintest suggestion of a salty taste that disappears in the blending of the two.

## CONDITION OF BEES IN FLORIDA.

Bees are in unusually fine condition all over the state this fall. Not only did the summer keep them stronger than usual, but also in September and October, right up into November, they have been gathering freely and breeding well. At this writing, Oct. 23, the yard sounds like orange-blooming time. Speaking of that, elicits the remark that there will be a good orange-honey crop next spring, weather conditions favoring; for the time to build up for an early orange flow is in the fall, and bees are surely doing that now. See that all hives have at least five frames full of capped stores, or the equivalent, and is full of bees. Then you can sleep nights, or even go away on an automobile trip, and not worry; for you may be sure all will be well when the fragrant white petals of orange again scent the air.

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The editors of bee papers have all along sounded warning notes protesting against rushing the crop off to some large mart,

and have urged producers to sell at home. In the present condition of the honey markets such advice is *apropos* and timely.

The following letter is from a man who has made beekeeping profitable, and home-marketing of honey one of the means toward success. It has such a genuine ring of common sense, and moreover it is so timely just now, that its insertion here will surely appeal. We quote in part:

Dear Sir:—Your letter was received in due time, and greatly appreciated. Honey in the big markets is so low in price I dreaded to ship there. I am, therefore, supplying my old customers and some new ones. I do not expect over 1000 gallons, and I think I can sell it all to my local trade. I am getting from \$1.25 to \$2.00 per gallon, according to quality and methods of packing. The first year I had bees I got 83 gallons from 14 colonies, and could not sell more than half of it. I fed the rest of it back to the bees in spring. So I decided to try my hand in educating the people in this vicinity to eat honey, and thus build up a market at home for my goods. I made quality and fair dealing my motto for seven years, and now I find that there is a steady increase in demand for my products. I think it is safe to say I shall be able to sell 1000 gallons in my local market, and I think that is pretty good when I have a neighbor five miles from me, with 200 colonies, one ten miles away with 100 colonies, and two more eight and ten miles away with from 30 to 40 colonies each. All are selling in the local market. Happily we do not trespass on each other's territory, and no confusion arises. First, I do my own grading, which is not nearly so rigidly done, and in dealing with the consumer I get my share of the sums that transportation companies and commission men and dealers make. To show you, I enclose a few orders I have received. If I had to sell to the Eastern markets, thru commission men, and stand for all losses in shipping, and all other disadvantages, I would go out of the business entirely.

We wish to commend the practice of the correspondent above quoted. It is a remarkable fact, that, while more colonies of bees are kept per square mile of territory in the southern states, more of the product is consumed right in that same territory than in any other portion of the United States. People are surely eating more honey. A high standard of quality, honest and fair methods of dealing, and "hustling" in the advertising, will infallibly bring results. It is not the big cities that need "more honey." It is the smaller towns and the communities.



# CONVERSATIONS WITH DOOLITTLE

At Borodino, New York



## OUTDOOR VS. CELLAR WINTERING.

Which is better—wintering the bees on their summer stands or in the cellar? A beekeeper of considerable experience tells me that bees winter well on the south side of a building where the sun apparently does double duty. Do you advise this?

Well, hardly. Bees have been known to come out fairly well when left during winter on the sunny side of a building, but more often it results in a loss if not in weakened colonies in the spring. Still, this would be better than leaving the colonies on the north side of a building where the sun does not warm up the hives at all. On the sunny side the bees fly at rather frequent intervals during the winter. The heat produced by the sun on the hive and building, together with the bright light shining in at the entrance of the hive, causes the bees to fly when the air is still, even with the mercury in the shade as low as the freezing-point. If the ground is bare about the hives this bright sun makes it possible for the bees to fly with little if any loss, as the dark ground so absorbs the rays of the sun that the bees can rise in a very low temperature. Bright snow on the ground causes them to come out more than the bare ground.

I know it is claimed that bees wintered on their summer stands come out with greater vitality in the spring than those wintered in a cellar; but after an experience covering more than 40 years I have come to the conclusion that the loss in bees wintered out of doors is more than can be compensated by the extra vitality of those which come thru alive. With a loss several years that went above 75 to 80 per cent of the colonies left out, I have decided on cellar wintering for central New York, except three or four colonies for experiment.

The loss of colonies in outdoor wintering, tho this may be of first importance, was not all that led me to decide on cellar wintering. The amount of stores necessarily consumed when wintering on the summer stands above that where the colonies are wintered in the cellar has quite a little to do with the profit or loss in beekeeping. By experiments made by myself and other close observers it has been proven that less than one-half the stores are needed for cellar wintering than will be consumed during the average winter when the bees are left out. This comes from the amount of food that is necessary to be used for fuel to keep up the same warmth in the cluster in a freezing or a tem-

perature 30 degrees below zero, which obtains in the northern part of the United States and Canada. By weighing a certain number of hives in the fall, each hive containing colonies of as near the same strength as to bees as possible, then setting half of that number in the cellar and leaving the other half out, the difference as to the amount of stores consumed can be ascertained approximately—near enough for all practical purposes.

I made an experiment with ten colonies one winter. November 20, at the time the most of the bees were placed in the cellar, I weighed ten colonies for the sake of making a comparison of the amount of stores consumed by bees wintered out of doors with that consumed by those in the cellar. The five outdoors weighed as follows:

Wt. Nov. 20.	Wt. Apr. 19.	Loss in Wt.
54	36	18
67	48 $\frac{1}{4}$	18 $\frac{1}{4}$
46	29 $\frac{1}{4}$	16 $\frac{1}{4}$
74	51 $\frac{1}{4}$	22 $\frac{1}{4}$
63	47 $\frac{1}{4}$	15 $\frac{1}{4}$

Total consumption	90
Average	18

The colonies were weighed—hives, combs, frames, and all. It might have been a little more accurate if the stores could have been weighed separately; but for all practical purposes I think the experiment very fair.

Of the five put in the cellar, their weight and consumption of stores were as follows:

Wt. Nov. 20.	Wt. Apr. 19.	Loss in Wt.
55	47 $\frac{1}{4}$	7 $\frac{1}{4}$
58	48 $\frac{1}{4}$	9 $\frac{1}{4}$
62	54 $\frac{1}{4}$	7 $\frac{1}{4}$
49	42 $\frac{1}{4}$	6 $\frac{1}{4}$
63	55	8

Total consumption	39
Average	7 4-5

This shows a consumption of less than one-half by those wintered in the cellar as compared with those wintered outside. This, with the much greater security afforded, would seem a sufficiently strong incentive for the cellaring of bees during winter.

In former years I paid strict attention as to the temperature in the cellar, looking at the thermometer once or twice a day, but of late years the bees at the out-apiary are put in the cellar under the farmer's dwelling, and not once looked at or disturbed by myself during the whole winter. The cellar is used just as it always was. The entrances to the hives are turned toward the cellar wall next to the sides which have no windows and the windows are partially shaded. This plan might not work in all cellars, but has proven all right in this case for twenty-five years.



# GENERAL CORRESPONDENCE

## NATIONAL PROBLEMS

### Article I.

BY PROFESSOR FRANCIS JAGER  
President National Beekeepers' Association

There was a time not very long ago when our great national industries—railroads, steel, sugar, lumber, etc., were in their infancy and were known only under the name of “our infant industries.” They were struggling under foreign competition, domestic disorganization, lack of funds, low prices, and poor management. They were groping along a doubtful path toward success. At this critical time the government of the United States, ever alert for the ultimate success of home industries, reached forth its helping hand. By wise legislation and abundant appropriations and bonuses it raised these infants to sturdy youngsters who now are even veritable giants whom the government finds it difficult to manage. To encourage the railroad industry for instance, land grants were given to companies, amounting to a strip of land twenty miles wide along their whole right of way. Protective tariffs, easy credits, favorable banking laws, and our foreign-consuls were engaged as nurses in behalf of these infant industries.

To extend to the struggling industries of the country all possible financial and moral help has become an established policy of our government.

As some industries get rich and self-supporting the paternal care of the government turns toward other infants — still young and struggling. Among these at present is our bee and honey industry.

It seems we have not yet realized how good a friend old Uncle Sam is to us. We have been straining our private energies and have been spending our limited funds to establish the honey industry on a solid footing. Spending time, energy, and money, talking, writing, organizing, attending conventions, etc., has achieved wonderful results. State organizations have been established, co-operative associations and marketing centers have sprung into existence, while methods of production of more and better honey have been devised.

But it has taken the beekeepers a long time to realize that there are limits to the enterprise of individuals. To place the honey industry, scattered thruout this immense continent, and consisting of number-

less small units, into a compact body endowed with life, power, and strength, we must have state and government aid. If we should feel inclined to boast of our organization and strength as developed at the present time we have only to contemplate the general advance of prices of all staple articles while honey has not advanced. On the contrary, the prices today, especially on extracted honey, are ridiculously low. This certainly should take away our self-conceit.

But ours is a contented profession. Just see. We say, “How much it costs to produce other foods, while honey costs practically nothing to produce! We can afford to sell it cheap,” etc. Excuses to cover our own weakness and inactivity! If the steel and coal magnates would live up to this argument of “no first cost,” the ore lands obtained for a song, the ore mined at a fraction of a dollar per ton, instead of complaining about our billion-dollar coal and steel trusts cutting juicy melons for their owners, we would be enjoying these gifts of nature at just as ridiculously low a price as honey is sold for today. But they are organized and that makes the difference.

In a few articles I wish to show what we need and how to get it.

The very first thing the beekeepers, both present and future, need is instructions. Beekeeping is a science, and a very deep and complicated science at that. Knowledge is power. It is also success and wealth. The ignorance of the average beekeeper is appalling, and the failure of the country to obtain better results is traceable directly to this ignorance. Yet the beekeepers are far from being unwilling to learn. The difficulty is that they have very small opportunities for learning. We have papers and periodicals and books—all good and thoro; but out of 800,000 beekeepers hardly 100,000 ever see any of them. Knowledge is such a wonderful treasure that everybody wants it, but nobody wants to fight for it. It must be brought to the beekeepers and presented to them with a bow and free of charge. Only the State and the Government could do that. The beginning was made tentatively a few years

ago; and since the Department of Agriculture in Washington has established a bureau of bee culture, and a country-wide extension service, one state after another has added beekeeping to the curriculum of its university instruction and extension work. The undertaking has been a great success. Yes! the beekeepers are willing to learn if they are made to see the necessity. We only need to refer to the crowds which turn up at conventions the country over to hear lectures of the Government extension men and other prominent beekeepers, or to the demand made upon our universities to send out men to speak on beekeeping, or to the number of students taking the beekeeping courses; but for such work money is needed—State and Government money—money collected from taxes which we pay, and for which we have a right to ask these things in return, and which we shall obtain by showing them that our demands are reasonable.

A few years ago some beekeepers attending the National Beekeepers' Association of North America were gathered in a hotel in Minneapolis in the small hours of the morning, talking about bee problems as usual. One of them made a remark at that time, that our States and Government have plenty of money to spend on experiments with every imaginable bug and weed, and that we ought to go after them in the interests of the bee and honey industry. "Yes," said another one, "put the stress on 'go after them.'" This "go after them" stuck in the mind of some of our Minnesota beekeepers. They talked and planned how to "go after it," and this is the way they did it. At the next Minnesota Beekeepers' Association meeting a legislative committee was organized. One or more beekeepers in every county of the state were put on the trail of candidates for the legislature, and they talked to these candidates bees and honey, and the necessity of appropriations for bee inspection, bee instruction, and bee exhibits. When the legislature assembled the committee found the legislature not only well posted on bees, but found quite a number of warm friends and influential supporters in both houses. Why, our difficulties and obstacles that looked like mountains were really only mole-hills. We secured a bee-inspection law with \$2000 appropriation, a division of bee culture at the University of Minnesota with \$6500, and premiums for honey exhibits at our big State Fair building, amounting to nearly \$1600.

What did it? A strong state organiza-

tion with competent officers and committees. When you talk to legislators you must talk convincingly and with an organization to back you. Alone—as an individual—you have as much show to obtain results as a solitary queen in a hive would have to start a colony.

To give you another instance, at the last National convention in Chicago it became apparent that the demand for service made on the Bureau of Bee Culture at Washington was so great the continent over that Dr. Phillips and his small staff could not even begin to do justice to the demand made on them. The southern states especially clamored for instructors and organizers. The matter was brought before the National convention, and at its instance Mr. Root and Mr. Pellett went to Washington to put their request before the Senate Finance Committee. Representative beekeepers of many states sent in their letters of request at the same time to their representatives. In a few days letters from New York, Ohio, Michigan, Illinois, Indiana, Iowa, Wisconsin, Minnesota, Dakota, Colorado, Missouri, Idaho, Wyoming, Montana, California, practically the whole country, began to pour into the Department of Agriculture and the Senate Committee. I can well imagine senators and representatives from all parts of the States going in and coming out of the committee rooms like bees from the hive, all asking for an appropriation for Dr. Phillips in the name of their constituents, backing up the request made by our committee. But my imagination may be wrong. The fact, however, that the sum of \$5000 was allowed to put two more men in the field is not imagination.

This shows how easily great results may be obtained by organization in behalf of a worthy cause. Do not say, "I don't get any benefit from the dollar I pay for my annual dues in the State or National organization." Such a view is narrow and wrong. The train of beekeeping is moving ahead, and you are necessarily moving with it whether you act as engineer or are paying your fare as a passenger, or are just taking a ride on the trucks.

By the way, Dr. Eric Millen, East Lansing, Michigan, is the Secretary of the National Beekeepers' Association, and he is selling tickets at \$1.50 to those who wish to ride in a Pullman coach. He would like to see the train run in several sections with enough paying passengers to put a fund in the hands of the National Beekeepers' Association of at least \$25,000.

St. Paul, Minn.





Ironweed, smartweed, and sunflowers along the St. John's River, Florida. The timber is three or four miles away.

## A FEW FLORIDA HONEY-PLANTS ALONG THE ST. JOHN'S RIVER

BY C. H. CLUTE

Orange was a failure here last season.

The saw and cabbage palmetto were all right. The prairie yield starts before the cabbage - palmetto bloom is over. The prairie bloom lasts up to October or November. Last year it was a failure here on account of high water. If one had a launch a few miles would take the bees to bloom above the high water.

In December and January maple and willow yield pollen and honey. In February

and March, by moving, we have access on poor land to horse-wicker commonly called greasewood; also pennyroyal that gives a flow of 100 to 125 lbs. per colony if cold weather does not interfere.

Then by moving again we get orange, basswood, etc. In August the deertongue is in bloom. This yields well, giving a lot of nice honey; but it is found in only a few locations.

Sanford, Fla., July 22.



Looking down a "cutaway" road thru cabbage palmetto.





A beeyard in the distance under cabbage palmetto. The launch belongs to Mr. Clute, who at the time was just starting on a trip of 24 miles up to Lake Jessup, where the honey-flow is earlier.

## DO BEEKEEPERS WANT A DISTRIBUTING ASSOCIATION?

BY G. P. STARK

After having had various experiences in the honey business I have come to the conclusion that very few really want or need a distributing organization. On the other hand, on reading the bee-journals many correspondents seem much interested.

Early in 1915 several leading beemen who had no particular personal need of nor interest in such an association, having been in the business long enough to establish a market for their own and their neighbors' prod-

uct, saw visions of the need, and of the great good that could be accomplished by such an institution. These beemen started the ball rolling by incorporating the National Honey-producers' Association, to be capitalized by beemen only. When it came to the cash, however, the beekeepers in general preferred "watchful waiting," and the burden therefore fell on the few.

Not even a peanut-stand can run without capital. Sometimes I wish that J. P. Mor-



Smartweed, wild sunflower, and ironweed along the river. The cabbage palmetto in the background is a mile and a half distant.

gan controlled the business, for it takes a lot of cash to pay for carloads of honey and bee-supplies; and unless the manager of the institution has a bank his usefulness will be limited, and big dividends will not be likely to accumulate.

A MELON STORY.

A small boy who was given a dime to buy a melon met a farmer who had two large melons in his wagon. "Say, mister," the boy asked, "how much do you want for one of those melons?"

"Well, kid, I sold all the rest for 25 cts. each; but if you want one I will let you have it for 15 cts., or both for a quarter."

"Couldn't you let me have one for a

dime?" the youngster asked hopefully; but the farmer drove on.

Soon meeting a bunch of big boys the farmer sold the two melons for a quarter. The small boy, not belonging to the "gang," had to be contented watching the big boys fight for the core.

Usually, this is just the way the beekeepers will do—let the jobbers come in and get the core and then cuss the manager. A co-operative concern must be supported by its members. They must co-operate in every way. There is very little danger of the manager looting the treasury if no money goes in to run the business.

Kansas City, Mo.

BEE - HIVE RECORDS

BY C. E. FOWLER

Intending to write about hive-records I looked up the indexes of the last two years of GLEANINGS and found so many articles on the subject that I felt discouraged; but after reading them over my courage came back.

On page 224, March 15, 1915, Doolittle gives a whole page on the subject, and winds up by saying that he likes a board best, using "brief signs," but does not say what the brief signs are. Then there is Richardson's plan, page 510, June 15. He has a slip for every hive, and every visit. This seems too clumsy altogether. The McIntyre system, page 711, Sept. 15, 1914, gives too little room for remarks, allowing only one line per hive. Many make the records on the tops and sides of hives; others merely use pins, nails, bricks, clods of earth, and painted strips of tin, most of which give no record whatever, but merely an indication of the present condition of the hive.

My idea of a record is something that will give the past history of the hive, set down at the time of each visit, that can be saved for years. The illustration shows my year's record for hive 47. The first column gives the date of my visit; the second, the condition of the queen, and the number of pounds

of bees. The figure 14 at the top of the column means that the queen was a 1914 queen; the *m* indicates the name of the breeder.

The second illustration is merely a key to the signs used in the queen column. 0 means no queen; 1, eggs; 2, larvæ; 3, capped; 4, hatching; 5, egg in queen-cell; 6, grub in queen-cell; 7, queen-cell capped; 8, queen hatched (virgin); 9, laying queen;

HIVE # 47 1916.					
DATE	Queen	Bees	Brood	Honey	Supers
4/1	0	2	0	4	1
4/8	6	2	3	1	
4/15	2	4	2	1	2
4/22	6	5	12	4	2x1
4/29	4	6	14	6	2x1
5/6	1	8	16	2	2x1
5/13	1	10	10	4	1x2
5/20				1x2	5
					4

Brief Signs Used	
0	No Queen
1	Eggs
2	Larvae
3	Capped
4	Hatching
5	Eggs in Q. Cell
6	Larvae ..
7	Capped ..
8	Hatched (Virgin)
9	Laying Queen
x	Drone
W	Laying Worker
□	Put in
—	Taken Out
x	Excluder (4 Col.)
.	Shallow Super.

9 with a line thru it, drone-layer; W, laying workers; x, xx, xxx, quality of queen. A square means put in; therefore figure one inside a square means eggs given.

The third column of the record registers the frames of brood and honey (put in and out—remarks—where from).

The fourth column records the hives and





Exhibit of A. O. Raffington, of Hutchinson, at the Kansas State Fair. Mr. Raffington is a beginner in beekeeping, who has made good. The large bottles at the top contain honey vinegar

supers. In this column x means excluder. The dot under it means shallow super, while a dash signifies a comb-honey super.

Reading the record, I find that the first visit was made April 1. There was then no queen nor brood; full-depth hive. Eggs were given from No. 40, and two frames of brood from No. 48 (to see if queenless).

The second visit was April 8. On this date there was a queen-cell with grub in it. A laying queen was given from No. 40;

two frames brood were found, and four more added from No. 48. There were three frames of honey (queen marked xx).

The next visit was April 15. I found larvæ and about 4 lbs. of bees, 8 frames of brood, 2 of honey. A full-depth hive was added on top, without any excluder.

On April 22 I found a grub in a queen-cell, 5 lbs. bees, 12 frames of brood, 4 of honey. The top hive and queen were put at the bottom; bottom hive and brood on top, with excluder between.

On April 29 four frames of brood were taken away, and an extracting-super added.

On May 6 a comb-honey super was added under an extracting-super.

On May 13 queen and brood shifted again. On the 15th the extracting-super was removed, comb-honey super added under No. 4 comb-honey super.

Hammon, N. J.

[This record could not be read by one not fully understanding the system; but if it is legible to Mr. Fowler, that is sufficient. The point is that what might be called a shorthand system may be used, taking almost no time to make the record, and yet giving a full and complete account of what was done. Doubtless the system would have to be modified to fit the particular needs of each individual beekeeper.—En.]

## HONEY EXHIBITS AT THE KANSAS STATE FAIR

BY J. P. LUCAS

The Kansas State fair at Hutchinson, Sept. 16 to 23, 1916, was a grand success in every respect. The beekeepers made some exceptionally fine displays. Dr. G. Bohrer, of Chase, Kansas, says it was the

largest and best ever held in the United States.

The honey exhibits occupied 1845 square feet of space. There were displays from half a dozen Kansas counties—J. A. Nin-



ninger, of Nickerson; J. P. Lucas, of Topeka; The Cloverdale Apiary, of Mount Hope; F. E. Clark, of Nickerson; W. T. Measer, of Hutchinson; Dr. A. D. Roffington, of Hutchinson; Jas. Gilbert, of Harveyville; M. E. Andrews, of Larned, and Mrs. M. E. Andrews, of Larned. In all there were 3425 lbs. of extracted honey; 3375 of comb honey; 100 pounds of beeswax; 25 gallons of honey vinegar. There were also two displays of bee supplies, and 18 observation hives. A better showing could have been made if there had been more space. Next year we expect to have a new beehouse, the Horticultural Society being in the same building.

A meeting was called by the beekeepers, and "The Southwestern Beekeepers' Association" organized. This is the first organization of this kind in this part of the

state. Twelve men became charter members. It is their desire to boost the interest of the beekeepers, and they are putting up a hard fight for a new building. They have pointed out the fact that this display was far better than the Topeka beekeepers had, as Topeka prizes are so small they can not

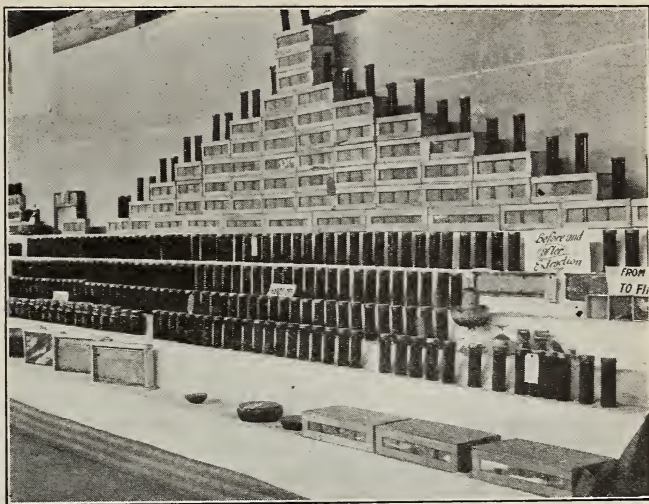
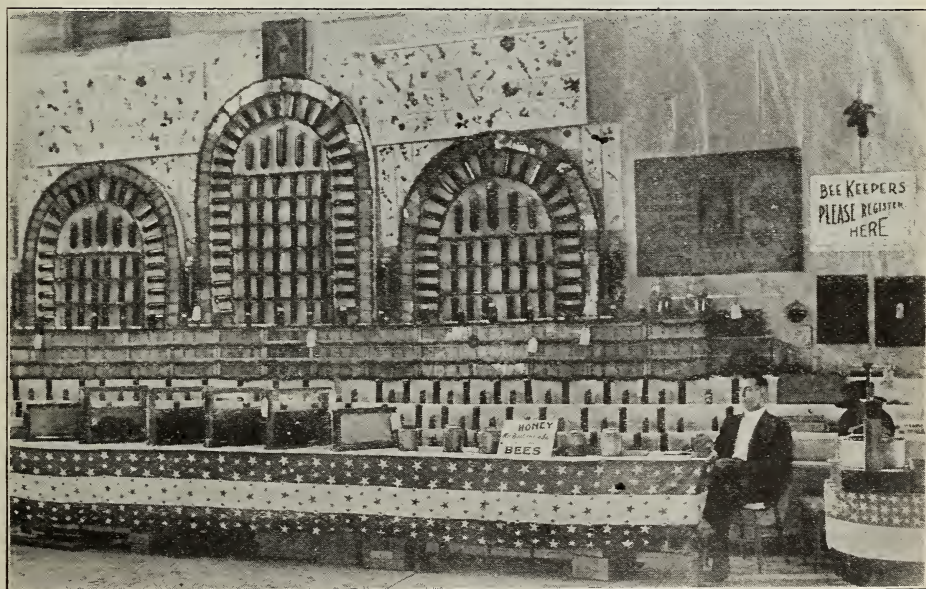


Exhibit of C. E. Clark, of Nickerson, Kan. Mr. Clark is another beginner, and one who means business. He thinks a new building for honey will be necessary next year.



The banner display at the Kansas State Fair. This exhibit was put up by J. A. Ninninger, of Nickerson, Kan. Mr. Ninninger is not afraid to spend money and hard work on an exhibit. Note the pressed honey-plants, the honey, bees, etc. At the left of the exhibit (not shown in the picture) he had a log cabin made of honey.

afford to put up a show. If Topeka will pay better prizes they will have better shows. This organization is to work in harmony with the Kansas Beekeepers' Association. Dr. A. D. Roffington, of Hutchinson, was chosen president; J. A. Nenninger, of Nickerson, secretary, and J. L. Pelham, of Hutchinson, treasurer.

The *Hutchinson Daily Gazette* says:

Fruit canned with honey exhibited by J.

P. Lucas, of Topeka, is well worth the time of every housewife to visit. He has on exhibit a number of fruits canned with honey. He has kept some of these jars since 1910, and has shown them every year since. All are in good condition. Among the canned dainties are corn, peaches, pears, cherries, red raspberries, plums, plum butter, and strawberries. Mr. Lucas also has samples of honey made from 28 different flowers.

Topeka, Kas.

## IS THIS FAILURE?

BY CLOSSON SCOTT

For six or seven years I have been an enthusiastic beekeeper. I have bought most of the textbooks, read most of the journals, spent two years with a professional, and even traveled nearly a thousand miles looking for a new location. But lately I have had my doubts about continuing in the business. In this article I expect to give a little

for more bees, and then still more, and now am somewhat in doubt as to whether I have made enough of a failure to quit or not. The "some more" bees amount to only about sixty colonies; but as there has been no profit, and as I can't afford to keep bees for pleasure, they must be sold or given away or moved to a better location.



Exhibit of J. P. Lucas, of Topeka. Mr. Lucas was handicapped by reason of living so far away. As usual, his fruit canned with honey was a great surprise to the ladies. He had some put up six years ago. He also had 28 kinds of honey made from different honey-plants.

advice to beginners, and hope to get some more from the real experts.

I started beekeeping in the usual way. I hived a swarm, got curious about the myriads of little insects, bought a book, then another, subscribed for *GLEANINGS*, used patent hives and then scrapped them, worked

season was almost a complete failure, and I fed for winter with the thought that I would make it all back next year. But next year came; and when the winter stores were gone I had to get out the feeders and keep them going till fall. About that time our inspector came to look over the bees. They

The first two years I had from four to nine colonies. Then winter cut the number to one. I spent that season with a large producer, and learned much about wintering and other subjects of value to me. The next year I went back as one of the assistants, instead of being a mere student, at an increase in salary. The next year I thought I knew enough to start for myself, as I had helped handle 125,000 lbs. of honey besides seeing a few other beekeepers, and picking up quite a few ideas. Accordingly I purchased about thirty-five colonies and started on the home farm. We were living in town at the time; but I rode out on a bicycle to tend the bees. The



were free from disease, but I was discouraged any way, and told him so. "Stick to your bees," he said, and I thought it over and decided to stick. I even persuaded a friend to make plans to go in with me, and I started out to look for a new location. I found one too, a good one, and I came home bubbling over with enthusiasm. We were just going up there and clean up a fortune in about two years, and then we could spend the rest of our lives telling about it.

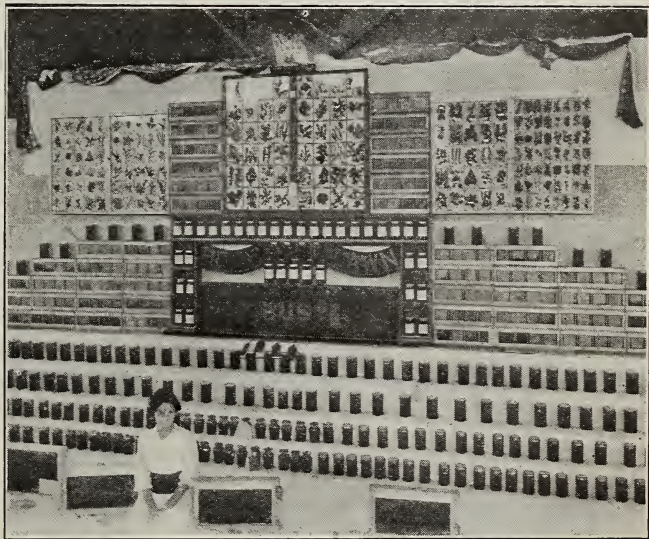
During part of the time I was buying my bees. As I said before we lived in town. But the renter didn't do very well, and so we moved back to the farm. My brother and I both had a little agricultural training, and so we took hold of things and began to work out some methods of our own. The farm hadn't been paying very well; but since we started "book-farming" things look much more promising. It now appears that if we stick together the old home farm will come back to what it used to be. But it is difficult to handle bees and a farm at the same time. Anyway, this is a poor location for bees, and I felt that it would be a waste of time to keep them here any longer. As it would be impossible to tend the bees if I should move them, and farm too, it became necessary to give up one or the other. At this time I got to figuring, and suddenly got cold feet when I saw what it would be necessary to make in order to come out even. I suppose cold feet is a "catching" malady; for in the next letter from my friend there were plain indications that he, too, was afflicted, and we agreed to quit before beginning.

Right here I will say that he has made more from his bees than I, and lost more, too. He lost about sixty colonies one winter—nearly all he had—and he was to ship the empty hives to me to be filled with bees. But he is under the necessity of making a living the same as I, and can't afford to leave a sure position for one as uncertain as beekeeping has proved to be with us. I know that, if some of our rich men had never taken a chance, they would still be poor; but if some of

our poor men hadn't taken a chance they would still be rich. As it is with us we are very doubtful about taking the chance.

I have learned a few things that will be valuable to me if I go on or quit, either one, so my time has not been entirely wasted. I have been interested in other lines of agriculture, and have noticed that there is nearly always some one yelling against education in certain lines for fear of overproduction. The fear of overproduction does not frighten me in the least. I have yet to see the time when I couldn't sell many times as much honey as I could produce, and at a good price too. I know there are hundreds of localities where honey is as scarce as it is here. When we get a greater production of honey, these places will be supplied with a good quality of honey, and the price will not drop because of overproduction.

There is one thing that I shall remember for a long time. That is this: No amount of good management will enable the bees to gather honey where there is none. In other words, if you would have success you must



Display by W. I. Measer. Mr. Measer is an old standby who always puts up a creditable exhibit. He is a live wire every time.

have a good location. I would rather face foul brood any time than try to keep bees in a poor location, and I know what foul brood is too. I don't think I made a worse mistake than starting in a poor location. However, one can't tell what the location will do without trying it.

Perhaps some one will ask if I would advise against beekeeping for a living. I





R. F. Holtermann and his helpers for 1916 standing in a field of alsike clover in full bloom.

can't say I would. I can't say I would advise any one to start in a small way rather than with a large number of colonies. A person truly interested will find out the proper manipulations and use them. I would advise a year with a large producer, if it is at all possible, and also work at a school of apiculture. I would advise standard-sized hives and simple fixtures, not that they are better, but because they are interchangeable with others you buy. Still, it is not for me to advise too much, as I ought first to make a success of bees. What

bothers me is not what is past but what I shall do in the future. Possibly this locality will yield better in the future. I may be too easily discouraged. Farming is sure to pay. Wouldn't it be better to take the sure thing?

I gave up some very desirable things to get money to buy bees. I have spent six years of the best part of my life preparing to care for them. I spent a little sum of money that looks large now it is gone. Shall I go on? Shall I take a chance? I think I'll take a chance.

Newton Falls, O.

## SUGGESTED WAYS TO DETERMINE HOW EUROPEAN FOUL BROOD SPREADS

BY R. F. HOLTERMANN

It seems strange that European foul brood, which has worked such terrible havoc, and with which beekeepers have come in contact so long, should be such a mystery. It is taken for granted that no one is going to be foolish enough to say that European foul brood is a boon to the country simply because it is likely to wipe out the smaller beekeepers. No objection can be found to an honest representation of the industry; but I have seen many statements in the press in our own country, giving the very large amount of honey secured from colonies. Those who were instrumental in cir-

culating these reports however were not very energetic in telling of failures of crops or of the many instances where men engaged in the business, owing to incompetence, inexperience, unfavorable environment, or adverse season, lost all they invested, nor even how many in 1914 not only did not make a dollar, but were obliged to spend a lot of money to put their bees in shape for the following winter.

Recently I have given some thought to the problem of finding out how European foul brood spreads. It appears to be a somewhat intricate question because of the

rapid spread of the disease and the wide range of territory over which it roams in a short time. To find out the way in which European foul brood spreads I would conduct some experiments under the following conditions, adding to them any suggestions of value that could be found, and eliminating, before undertaking the work, any which were deemed valueless.

1. Establish an apiary in an isolated section, letting the bees in each hive have a very large entrance. This entrance could be obtained by having a bottom-board with a deep space. The apiary should stand on a large sheltered pond of water. The object of the water under the hives would be to make it unlikely that the dead larvæ which the bees clean out could ever blow into the entrances of other hives.

2. Feed the bees extensively in the open. If necessary I would take them into a comparatively desert country where their only source of supply would be the feeders common to them all. If, under such conditions, the disease spread abnormally we would be justified in believing that the disease spreads thru the germs from bees of diseased colonies being left on the blossoms and after-

ward carried home by the bees out of healthy colonies visiting the blossoms.

3. Have enough colonies in a section where no natural stores could be gathered, thus eliminating the danger of common ground visited by the bees as in No. 2 and supply them with combs of honey and pollen, giving it to them in each hive. Or the bees could be fed thru individual feeders placed on each hive. The colonies should be set fairly close together, so if the disease is spread by the dead larvæ cleaned out by the bees there would be a good chance for it to get into hives in the vicinity.

4. Take queens from badly diseased colonies and introduce them with the least possible delay to healthy stocks, and take other queens; and, if possible (and I think it is), dip all but their heads in some disinfectant and note the result.

A careful work carried out along the above lines should give us some information of value. I am strongly of the opinion that worker bees, so far as it lies in our power, should not have the chance to clean diseased larvæ out of the cells. Such work *must* result in the spread of the disease.

Brantford, Canada.

## A YEAR WITH POUND PACKAGES OF BEES

BY KENNETH HAWKINS.

After treating all colonies in my home yard in the fall of 1914 for American foul brood, investigation in the spring of 1915 showed that I had seven breeding queens left, but that every colony that remained was again badly infected with American foul brood. Seven one-pound packages of bees were ordered from Texas to arrive here by May 1, and they were given the queens, being loosed on full sheets of foundation, with fruit bloom in full swing.

The bees had no more than arrived when the warm weather of April went somewhere, fruit-bloom froze altogether, days followed when it was impossible for the bees to get more than a few hours' flight, and there was nothing to feed on. They were fed daily a pint of warm sugar syrup, half and half, a super being put on, and a newspaper spread over the frames with a small hole cut directly over the cluster for the pepperbox feeder.

As soon as the bees had begun to build up a little, signs of American foul brood appeared again; and knowing that there must yet be a source of infection, the Illinois inspector, A. L. Kildow, was summoned. He found an apiary within a mile with every

colony but two dead with American foul brood, all the rest, about 18 colonies, being exposed for robbing. This was prevented only in a measure by the entrances being practically stopped up with dead bees and by the cold weather. These colonies were burned.

This infection necessitated treatment of the nuclei from the pound packages, such as shaking, giving full sheets again, and feeding. It was more than discouraging to see those bright new combs and sugar stores go into the fire. Lots of queen-breeders advertise queens proof against "foul brood," making no distinction in the advertising between American and European. Any queen-breeder who advertises in this way is a fake, as there never existed a queen the introduction of which brought about conditions proof against American foul brood. Any good Italian is some proof against European, and the purer the Italian the greater the insurance.

Now the weather turned so cold again that two of the packages, after treatment, failed to survive the weather, leaving five. Seven more were ordered, with queens, and the feeding of syrup continued as long as



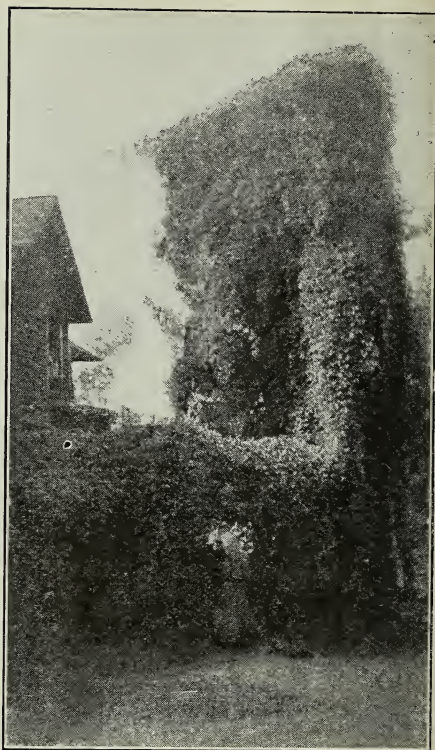
the cold continued. Altho Dutch clover was abundant, it gave only a slow flow, no surplus, but just the thing for the 12 packages to build up on, which they proceeded to do with a vim.

About July 1, 14 more packages were received, to be used in forming nuclei, as this yard was intended for queen-rearing, containing as it did my best breeders selected from the best honey-gatherers for years. The packages were each immersed in a pail of water, to wet the bees and prevent their flying, then one screen was removed, and all dumped into a hive with a screen top. Virgin queens were given each nucleus, and the nucleus bees supplied from the packages. They were put on full sheets of foundation, four frames to the hive, each frame half Hoffman size. The bees were fed a candy such as is used in queen-cages the first day, but the honey-flow from sweet clover, just starting, made further feeding unnecessary. About 60 nuclei were started this way.

Brood and bees were constantly removed after July 15 from the colonies started early with packages, usually two frames per week. These were full Hoffman size, as more nuclei were constantly formed, and some bees and brood were needed to bolster up nuclei where the first queens given failed to return after the mating, on account of the continued rain. No further feeding was necessary for the colonies or nuclei, and the honey-flow continued slow but sure until frost.

From this yard several hundred queens were shipped last year, most of them as fine as I ever produced, being daughters of my breeders saved in the spring, and the drones from the remaining 11 breeder colonies.

One of these strongest packages was relieved of its queen about July 1, and was



White clematis that climbed from a trellis on to a tree and shot up to the unusual height of 40 feet. During the blossoming period in July and August the bees swarmed all over it.—From A. T. Cope-land, Olalla, Wash.

used continuously afterward for starting cells, a frame of young bees being shaken before the hive each week.

Plainfield, Ill.

## THE SAND VETCH AS A HONEY-PLANT

BY EDWIN TRINDER

The honey from the sand vetch is mild in flavor, but it has a dark-amber color. As the vetch blossoms at the same time as white clover and alsike, the bees mix the two kinds of honey together, thus, of course, spoiling the color of the white honey.

The vetch has been grown here on sandy soil for the past few years, but the bees have never worked on it until recently. During the last season especially, I think that there was so much rain and cold weather that they could not go very far away. The vetch was close to the apiary, and for that reason they could get to it. The white clover and alsike are further away. The honey, however, is

so mild that many of our customers think that it improves the clover flavor.

We are located three miles from Lake Erie, near Port Dover, the summer resort. The honey crops have been only fair since 1913. We run for extracted honey and depend on buckwheat and goldenrod for the main part of our surplus. We winter the bees altogether on buckwheat honey.

I shall soon be 77 years of age, but am in good health. I have been president of the Norfolk Beekeepers' Association for fourteen years. The Association has been steadily growing. Now we have over 50 members.

Simco, Ont., Can.



## A BOY BEEKEEPER WHO HAS ALREADY MADE A SUCCESS

BY HUBER ROOT

It gives one a thrill to meet his namesake. I am not so sure that the great naturalist Francois Huber would have experienced any great thrill if he could have known of me; but I am speaking on general principles. Years ago it gave me a thrill to learn that a baby boy away off in Ontario had been named after me. It gave me another thrill when I learned not so very long ago that this boy had become a beekeeper. Now I am experiencing a third thrill, which I admit is mixed somewhat with envy, to know that this boy, now a man grown, has become a very successful beekeeper, and it has been a very great pleasure to meet him and to know him.

Five years ago Huber Burke began his beekeeping career with two colonies of bees. Without having bought any bees since that time he had sixty colonies this year, spring count, from which he secured an average of 230 pounds of extracted honey per colony, his best colony producing over 400 pounds; 10,500 pounds was fine white-clover honey, and the rest, 3300 pounds, was buckwheat. A year or so ago with twenty colonies, spring count, he increased to forty colonies and secured almost 100 pounds per colony.

I feel like congratulating this young man, not because he is named after me or after anybody else, but because he has made good in his chosen profession. Has any one in five years' time been able to make a better record?



Huber Burke, a successful and rising young beekeeper of Ontario.

## AN EXTENSIVE BEEKEEPER AND POULTRYMAN

BY R. A. MORRISON

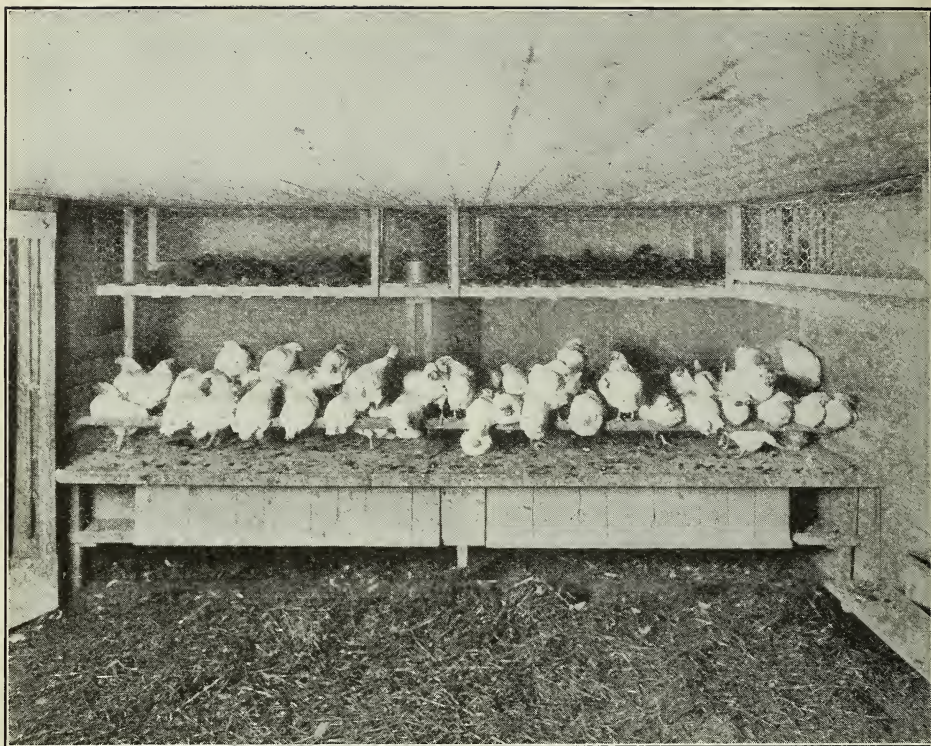
The picture shows my poultry-plant. This pen was run as an experiment for close confinement, made up of 60 single-comb White Leghorn pullets hatched May 21, 1911. They were shut up in winter quarters on the following 15th of November in a room 14x14 feet square.

They were never let out of doors nor given any change from that time until they had to be removed in November, 1912, to make room for sixty 1912 pullets.

Their egg-laying record began Jan. 1, 1912. That day's record was 33 eggs. For the following ten months their record was:

January, 1093; February, 1123; March, 1302; April, 1346; May, 1307; June, 1141; July, 827; August, 956; September, 662; October, 116. For the ten months, 9873—an average per hen of 164½ eggs, or 822¾ dozen. The average price per dozen for the ten months was 30½ cents, a total of \$251.06. The cost of food per hen was \$1.48, or \$88.80 for the 60 hens, which left a net profit of \$162.20; for each hen, \$2.70½.

This photo was taken by flashlight on the evening of Aug. 31, after they had gone to roost. Notice that some of them are asleep,



White Leghorn pullets in confinement—an experimental pen belonging to the poultry ranch managed by R. A. Morrison, a 200-colony beekeeper.

others have waked up, and are intent on watching the photographers, while the most timid ones have left their roosts and hidden themselves away in the dark shadows under the roosts. Also note their worn tails and large combs; the worn and dilapidated tails come from two causes—wearing in the

nest-boxes, and moulting; the large combs, from careful breeding. In this condition they laid 30 eggs on this day, Aug. 31.

Cataraqui, Ont.

[Mr. Morrison is also an extensive bee-keeper. A picture of his apiary appeared on our Sept. 15 cover.—Ed.]

## THE LAND FLOWING WITH MILK AND HONEY

BY PH. J. BALDENSPERGER

When the Hebrews, after more than forty years' suffering in the barren wilderness, approached the more fertile country of Canaan they very much resembled the modern Tayaha and Tarabeen—Bedouin tribes who delight themselves with the products of the land of promise. Sour milk and *dabash* are the two great staple articles of the nomad; and southern and eastern Palestine have changed but little in manners and customs, products and language, since the days of the Perizzites and the Amalekites. Since the Egyptian revolution of the 18th century, the passage of Bonaparte, and the last upheaval in

1883, firearms have been introduced into the peninsula of Sinai; yet a Bedouin or a "fellah" "bows" his rifle instead of shooting it. The bow is an ancient weapon, while the rifle is comparatively new. When a weary Bedouin or a tired "fellah" arrives at some settlement a wooden bowl of *labban*, or wholesome sour milk, is presented to him. This same milk was promised to the weary Hebrews in the desert. Fresh milk is never presented, and to some extent it is considered unwholesome. The *labban* is milk which has undergone a slight fermentation, and is to be found in every house or tent where sheep and goats are found.



Compared with the arid and sandy region of Sinai, Canaan was and is yet a very desirable country. Bread is to be found everywhere in Palestine. Labban is almost a necessity and a sweet dish—a kind of luxury. Hebron, in the south, is the great country of vineyards, and *dibs* is prepared from the juice of grapes. Joshua and Caleb cut off the luxuriant grapes from Esheol; and if now the modern travelers inquire what is done with the grapes there, “*dibs*” will be the answer. *Dibs* is the name given to grape-treacle in all the south.

The Bible student reads the Bible as translated by Europeans in the 14th and 15th centuries, and by translators who knew Hebrew, Greek, and Latin, but who did not know Palestine nor the innumerable shades of meaning in their language. They could not distinguish between milk and sour milk nor between *dibs* and honey; and as they certainly knew nothing of sour milk and *dibs* they simply translated *eretz zabath halab u'debash* by “a land flowing with milk and honey,” as in Exodus 3:8.

Very late in their national history the Hebrews began to make a distinction between grape honey and comb honey. Jonathan was probably the first Hebrew who tasted comb honey. In his memorable pursuit of the Philistines he saw the overturned booty, and with his staff picked up a piece of comb honey, *m'at dabash*, found in the spoil taken from the enemy—see I. Sam. 14:29. The text is very clear here. The Hebrew *dabash* and Arabic *dibs* are one and the same article. *Dibs* is made by crushing the grapes in rock-cut presses which are hewn out in the vineyards. Workers and vintners are allowed to suck the flowing juice as it runs down from the rock into the jar below. The Moslems, like the ancient Rechabites of Jeremiah 35, are not allowed to drink any strong drink. “Ye shall drink no wine, neither ye nor your sons for ever.” The grapes in all Islam are transformed into *dibs* as it was with the Perizzites. The pressing in the rocks, the flowing into the jar, and the sucking of the *dabash* from the rocks are mentioned in Deuteronomy 32:13, in Job 20:17, and in Psalm 81:16; and the rocks alone prove the sweet to have been *dibs* and not *assal*, the Arabic name for honey taken from the bees. That bee honey was not meant by the writers of sacred history, every modern beekeeper will understand at once for several reasons: 1. Because honey remains in the comb if left alone, and will remain thus for years, even in the hottest part of Palestine, as the clefts of rocks are always cool—at least where bees have selected their dwelling.

2. Should the honey flow, bees would swarm around and become so aggressive that there would hardly be a beekeeper audacious enough to put his lips to the rocks and risk the furious stings of the robbers.

*Dibs* easily ferments when it is a few months old; and the prudent Arabs hurry the sale of the small jars, containing about 6 lbs. each, at the price of 40 cents—for so it was in the days of my youth, during the '80's.

By the end of January most *dibs* is sold in Hebron and its environs. Jerusalem and Bethlehem grocers may keep some in big jars and cool places till Easter. Later on, the *dibs* may ferment. This explains why the Hebrew legislator warns the people not to bring *dabash*. Offerings made by fire were to have a sweet savor. “No meal offerings which ye shall offer unto the Lord shall be made with leaven, for ye shall burn no leaven, nor any *dabash* as an offering”—Leviticus 2:9-11.

In spring *dibs* begins to ferment, and is simply thrown away when the fermentation is irremediable. The Philistines, who originated in the islands, were more advanced in agricultural knowledge as well as in other industries. Then the Hebrew-Bedouin were obliged to have their weapons made by the Philistines; and beekeeping, no doubt, was not only known to the Philistines exclusively, but they kept their processes secret to some extent.

In this unchanging East, beekeeping still flourishes in the Philistine plains. It was introduced into the mountains of Judah very much later; at all events, the author of Proverbs knew honeycomb which he presented to his Edomite wife, altho he knew nothing about bees themselves. He had wisdom and understanding (Proverbs 1:2), and he speaks of “four things that be little upon earth, but they are exceeding wise. The ants are a people not strong, yet they provide their meat in the summer. The conies (hares) are but a feeble folk, yet make they their houses in the rocks. The locusts have no king, yet go they forth all of them by bands. The spider works with her hands, yet she lives in kings' palaces.”—Proverbs 30:24-28. Very likely had Solomon seen bees he would have mentioned them in that place. The Arabs distinguish *dibs*, the grape-treacle, from *assal*, the honey of bees. The Hebrews of old had only one name for the sweet sticky matter, and they had only one name for hornets and bees—if they ever knew them. In later years honey was introduced from Syria or Assyria, and Egypt, and a name was given to distinguish it from grape-treacle—

*nafath dabash* or *nafath feem*—Proverbs 5:3, 16:24, 24:13, 27:7; Canticles 4:11.

The hornets, *dabareem*, only were known, and even in the case of Samson's riddle he evidently confounds hornets and bees, as the modern peasant in Europe will say bees or wasps without distinction. As the haunts of Samson were in the land of the Philistines he may have seen bees; but he could not distinguish them from hornets, and he calls them by the same name. We lived some twelve years about Timnath, Ekron, and the borders of the tribe of Dan, and could judge as beekeepers how erroneous the statement must have been. Jackals abounded by the hundreds; and when an animal dies it is laid beside the road and jackals feed on the carcass; yet for several weeks the skeleton is not clean enough to receive bees. Hornets, which are carnivorous, swarm about carcasses by the hundreds; and as the *dabareem* and bees had one name the confusion was easy, and he brought the riddle to the Timnathites.

The Arabs call the hornets *dabaheer*, or *dabur* in the singular. As the hornets are very voracious they build their nests underground or under the cactus hedges about Ramleh and Jaffa, where they find plenty of food—carcasses by the wayside, and fruits, or bees when they can get at them. We lost dozens of colonies before we knew how to fight the hornets, and later found the only remedy possible was to remove the hives to desolate places where neither fruit nor carcasses abound.

The passages in the Old Testament, tho not absolutely against honey of bees, rather prove the minor article to have been meant. Among the articles brought to David in Mahanaim for his retreating army we find wheat, barley, beans, lentiles, butter, and dabash—II. Samuel 17:29. No doubt the same articles were used by the Turco-German army on their march toward Egypt in 1914 and 1915—at all events about Hebron. *Dibs* was put before the soldiers always, not honey, which, being rarer, was reserved for the staff and pashas.

Ezekiel mentions the articles exported to Tyre and Sidon from the land of Israel—wheat and balsam, *dabash* and oil—Ezekiel 27:17. The quantities exported indicate the abundant and inferior article to be meant. Vineyards were known all over the country, and the vine and the fig-tree are mentioned everywhere, while beehives were altogether unknown, and had no name in ancient Hebrew.

Bees are well known to the Arabs by the name of *nahel*, and swarms are called *tard*.

The beekeeper is a *nahal*, and a beekeep-

ing village is the beekeeper's *nahalin*. *Nahel* is also used in some places for a swarm, meaning a young bee. This shows the development of the word *nahel*, a bee, derived from *nah*, sighing, distinguishing it from *dabur*, one who flees, blows, etc.

After the Captivity, beekeeping was very possibly introduced by the returning Jews or Egyptian and Assyrian settlers. The prophet Isaiah, inspired by some who had seen bees in their native lands, says, "And it shall come to pass in that day that the Lord shall hiss for the fly (*Pzebug*) that is in the uttermost part of the rivers of Egypt, and for the bee (*v'la'deborah*) that is in the land of Assyria, and *they shall come* and shall rest all of them in the desolate valleys, and in the holes of the rocks, and upon all shrubs, and upon all bushes"—Isaiah 7:18, 19. Struck by the curious sight of swarms hanging on shrubs and bushes in Egypt and Assyria, or taking possession of clefts in the rocks, the returning captives foresaw the days when the same strange sight would be seen in Palestine, as many other foreign commodities had been introduced by them.

Modern Jews have lost contact with their original country, having been separated almost entirely from it for at least fifteen centuries, and it is rather with modern fellahin that the old manners and customs and even religious rites of the Hebrews are still found. Islam was founded partially on Judaism and partially on Christianity, and therefore they have preserved Moses and the Mosaic law, and all the prophets of the Old Testament as well as Jesus (Esa), the son of the virgin Mary, adapting them to Arabic ways.

Nice, France.

#### Probably the Odor of Newly Gathered Aster Honey.

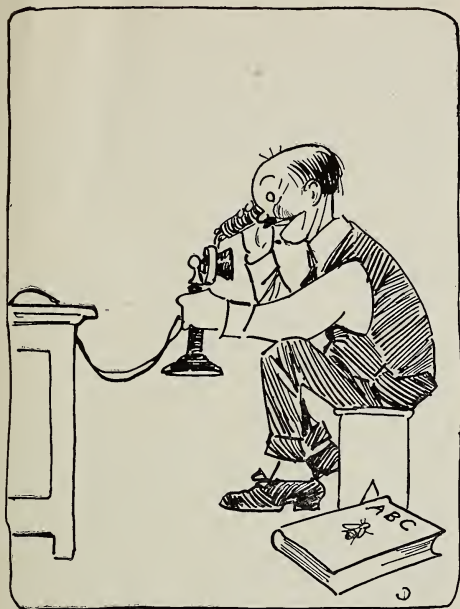
While working about some hives here in Columbus, since the University opened this fall, I noticed on many occasions that the hives had a very sour smell. I could often smell this odor when standing from ten to fifteen feet away from the hives, and at other times it was not perceptible until I opened the hives. I noticed the same odor was present about some hives I voluntarily inspected in a small town south of Columbus last week. Can you explain what this odor indicates, or what circumstances or combination of conditions cause it?

Columbus, O., Oct. 17. John Eckert.

[We should judge from what you write that your bees have been working upon the asters. There is usually a peculiar odor when they are working on aster bloom. Some people call it sour, some call it a rather offensive odor.—Ed.]



# Heads of Grain from Different Fields



THE BACKLOT BUZZER.

BY J. H. DONAHEY

"What's that?" "Yes, this is *Gleanings*."  
 "What's the proper way to introduce a queen?"  
 "It all depends on whose queen it is. If it's your queen, you say, 'Permit me; etc., just like that; but if it is a bee you'd better write to Doolittle or Miller. They don't do it that way."

## NOVEMBER THOUGHTS

BY GRACE ALLEN

Poor frosted blossoms, you must miss  
 The grace and beauty of those bowers  
 That spring laid here along the hills  
 And gladdened with her brimming showers!  
 Yet, no; you are not even ghosts  
 Of all the myriad April flowers—  
 They are gone—  
 Forever.

Dear morning-hours, how chill and slow  
 You creep from out the eastern sky!  
 More swift you came when from our hill  
 We saw June dawning—he and I!  
 Yet you are not the morning-hours  
 That found us there and passed us by—  
 They are gone—  
 Forever.

My bees, how quiet you are grown!  
 My heart recalls your springtime way—  
 How swift you flashed!—how gay and sweet  
 You made the blossomed plum one day!  
 Yet you, alas, are not the bees  
 That hummed so wittingly in May—  
 They are gone—  
 Forever.

## Where Else Could the Bees Have Got the Black Queen?

By chance I caught a swarm of black bees, and I put them in a box. I keep my bees in close rows with all queens clipped. This black colony was between two golden Italian colonies. In the spring the one yellow colony became queenless, and in due time I had a young queen in that hive, as black as a crow, which, later on, produced hybrid bees. If that was not a case of those queenless Italians stealing an egg from the black colony, I should like to hear from some one better versed.

Grand Valley, Pa. Geo. C. Morrison.

[A virgin from the black colony might by mistake have gone into a hive of the goldens. If so she might kill the old queen and take possession.—Ed.]

## How to Get Rid of the Cross Ones.

Apiarists are troubled sometimes by bees following them angrily while they are working and opening the hives. This is a very common occurrence; but no one tells how to be delivered of the annoyance.

My plan is this: Uncover the smoker; work the bellows until there is a good flame, and keep it blowing, keeping up a sort of circular motion. The movement and flying of the flames attracts the bees, which, by crossing against the flame, or jumping inside the smoker, disappear completely, and leave you free to do your work. I repeat the performance whenever two or three come to bother again.

I have used this plan for years with the greatest success. C. M. Carmona.

San Rafael, Trinidad, B. W. I.

## An Uncapping-can Made of a Barrel.

One day, while extracting, my uncapping-can filled up before I was thru. I had a 32-gallon barrel that I had formerly used for storing honey. I took out the head, cleaned it out thoroly, and nailed a block 5 inches high in the center of the bottom.

I then cut a piece of aluminum-coated wire cloth a little larger in diameter than the barrel and bent up the edge all around so as to form it in a shape similar to a piepan. This I tacked to the inside of the barrel, 5 inches from the bottom, putting a tack every 2 to 3 inches. The center of the wire cloth then rested on the block nailed to the bottom.

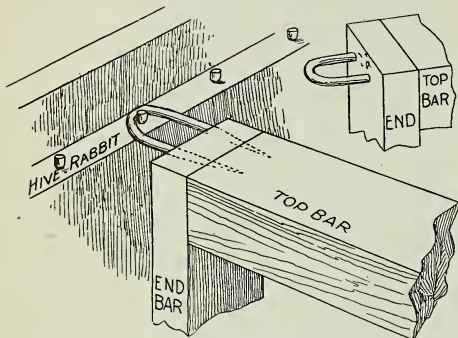
I bored a 1¼-inch hole just above the bottom of the barrel and made a spigot to fit it. A stick nailed across the top of the barrel, with a nail driven thru from below, completed the arrangement.

The whole thing did not take much longer to make than to tell about it, and it worked as well as any capping-can I ever used.

When I withdrew the plug the honey ran out so clear and free from wax particles that it was almost unnecessary to strain it.

Rhineland, Mo.

S. E. Miller.



Staple-supported frame as used by A. K. Clement, Brunswick, O. Instead of the spacing-pins in the rabbit Mr. Clement also uses spacing staples on the end-bars in the regular way.

[Almost exactly this kind of frame was devised years ago, with this difference, that it did not make use of metal pegs at intervals to regulate the spacing of the frames. The objection to a staple projection is the danger of splitting the end-bars and top-bars either while they are inserted or while in use.

The arrangement would not be very satisfactory where hives are moved about from yard to yard.—Ed.]

#### Should This Queen Lose Her Head?

On p. 701, Sept. 1, Dr. Miller says his best layer in No. 81 is marked for decapitation because her bees do not deliver the goods. Is it not a fact that the extra honey and pollen required to feed and rear these extra numbers of bees would make a fair surplus with a less prolific queen? Would it not be a fair test, doctor, to balance that hive at night with your best honey-gatherers; then decide if decapitation is in order? I have just such a queen, and I use her as a helper to my weaker colonies, and would not think of decapitation as long as she can lay eggs at the clip she is now going unless her bees were entirely worthless as honey-gatherers, which cannot be the case, and care for such fertility.

Indianapolis, Ind.

J. F. Knight.

#### Did the Galvanizing Make the Trouble?

The following experience may be worth something to many who are beginning in beekeeping. A citizen of this section failed to feed his bees as much last fall as he thought they might need; and when January came he became uneasy about them and went to a yard and stirred a lot of sugar into water, mixing it in a galvanized-iron wash-tub. The weather was so bad that he could not feed, and so he went away leaving the

sugar syrup in the tub. Now, this man was not a chemist, and failed to figure on any chemical action that might be taking place while he was away. About the first of March he went back to the yard and fed the syrup to twenty-six colonies, and, greatly to his surprise, he killed every one that he fed. He could not understand it; but he did notice that all the zinc on the tub was gone where the syrup touched it. Now, was not that a case of zinc poisoning, due to the fact that the syrup had enough acid of some kind in it to dissolve the zinc with which the tub was coated? He claims that he mixed 16 pounds of water to 25 pounds of sugar. The syrup was good and thick, and had not soured. Evidently the zinc did the work.

What about his combs? The combs have some honey or syrup in them; and to give these combs to other colonies would be a rather risky proposition.

Mt. Airy, N. C.

J. E. Johnson.

[We nearly always mix our syrup in an extractor-can, and very often store it for weeks at a time; but never have we had any trouble from poison. It would be our opinion that Mr. Johnson killed his bees by feeding too early. He should have given candy or frames of sealed stores. Mid-winter or early feeding overstimulates a colony, with the result that it starts breeding when the weather conditions are unfavorable. While we do not deny that poison may have had its effects, such early feeding is always attended with great risk.—Ed.]

#### Pays to have a Money Order.

In February, 1914, I sent an order of twenty-eight dollars to a party in California for bee supplies. In about a month's time I expected my freight at the station, also reply from the man, but in vain. I sent him a letter, but got no answer. I sent a letter to the postmaster to find out if the money reached them. In about three weeks came the answer from that postoffice that the party had received the money order, and would give it proper attention. I waited another month without getting more reply or goods than I had, and the letter from the postmaster. I went to our nearest town, about nine miles, horseback, to see an attorney, and explained to him the case. In two weeks I received my order with the money order, so you see he never cashed it. There was not a single line of excuse.

It is always safe in sending money by money order to save the slip, even if it is for only a small amount.

Weiser, Ida.

Mrs. Margarete Green.

#### How to Keep Bees away from Watering-troughs.

I tried the experiment of placing salt in the water where I wanted bees to drink, in order to entice them away from places where stock were watered. While I provided this salt in several different arrangements I could



not see that it was of any help whatever. However, I hit upon a scheme rather late in the season that seemed to work. The watering-place for my cow and horse, that the bees seemed to like so well, was an old cedar tub that had been part of a washing-machine. I found that, by sprinkling a little kerosene on the water and on the edges of the tub a day or two apart for two or three times, the bees deserted the tub entirely, and that it did not seem to bother the stock in the least. N. Fred Gardiner.

Geary, Okla.

### Starved-out Swarm.

I wish to relate an experience I had with a five-frame nucleus having an Italian queen. Altho I have kept bees for over thirty years, I never saw the same before.

The colony worked very well, and filled the frames with brood. In July I put on a super of 21 boxes; the bees partly filled these, and continued quite active. On September 15 I happened to look at the hive, and, to my surprise, it was silent. Two days before they were just as busy as they could be. I immediately examined it, and found it was deserted. The bees had left two days before. The frames were full of brood just hatching. I immediately transferred the brood to another hive, so that it could be cared for. There was no honey in the hive when I examined it. Can you explain this "desertion"?

Newton, Mass.

Frank Edwards.

[It is very apparent that the bees left because they were starved out. Had you fed them a little sugar syrup a day or two previous they would have remained. There are certain stages of the year when a colony that is increasing very rapidly needs to be watched very closely, or it will starve out or swarm out. It is, therefore, what we call a starved-out swarm.—Ed.]

### Two Field Meetings in Pennsylvania

The Philadelphia Beekeepers' Association has recently held two very interesting field meetings. The first was at the apiary of Captain Weston, at Essington, Pa., when over 100 beekeepers were present. Some very interesting demonstrations with the bees were given, and considerable bee-talk indulged in. Not the least interesting part was the "eats," so kindly furnished by the A. I. Root Co., and in such profusion that we were asked to eat several fellows' share.

This meeting took place at about the opening of the "yellow" honey-flow peculiar to the section adjacent to the Delaware River meadows. The plant, yielding the nectar, has a profusion of names; but no one, not even our learned botanists at Washington, seem able to give it the proper one. Locally it is known as the yellow flower, coreopsis, marsh sunflower, etc. The fields and meadows were a mass of golden yellow, such as the traveler has never seen elsewhere. The plant seems to be a relative of the Spanish

needle, but, unlike it, the flower has golden-yellow petals, and the seed does not cling to the beekeeper's trousers "closer than a brother," as does the Spanish-needle seed (beggardweed as some call it).

About two weeks later another meeting was held at the residence of Dr. Weaver, 7103 Woodland Ave., Philadelphia. Over fifty members were present. In the early part of the meeting the genial doctor turned his apiary over to the crowd. "They're yours. Do what you wish with them," and they did.

During the inside meeting much that was good concerning the wintering of bees "in this locality" was brought out; but the consensus of opinion was that the prime requisites for successful wintering are plenty of young bees and a goodly supply of honey. The "eats" were not forgotten either.

At the Essington meeting those who waited were rewarded by the appearance of Editor Root at the 11th hour (due to train delays), and his talk on advertising honey.

Oct. 10 the writer visited the Taylor apiary at the Rifle Range at Essington, and assisted in taking off and extracting between 1200 and 1800 lbs. of the rich, heavy, golden honey of the much-named yellow flower. On account of the cool atmosphere, fast work in extracting was impossible; and as no nectar was coming in the bees rather resented an intrusion. These bees were brought from Malvern, about 25 miles distant, about Aug. 18, purposely for this fall flow; and, despite the fact that hundreds of combs had to be built from foundation, the surplus will probably be between 4000 and 5000 lbs. for the 100 colonies. Had it been possible to supply drawn combs, the crop would have been very much larger. Chas. F. Hoser.

Norristown, Pa.

### Nectar and Juice from the Cowitch Berry.

I am mailing you under separate cover two bunches of cowitch berries. We got a nice lot of honey from the bloom in summer, but did not know we got two crops from it. A few days ago I was walking on the island near us, looking at the wild white asters just beginning to bloom, and found the bees on these berries very thick. You will see where they get the honey (?). I don't think they puncture the berry first. I think it is done by some other insect, and then the bees get the juice. I want you to taste the juice that is in one. From the taste it should be good honey. I want to know if they make honey every year from these berries. You can find four bees to each berry. J. W. Potts.

Gunnison, Miss., Oct. 16.

[This was referred to our botanist, John H. Lovell, who replies:]

The letter and box of berries from J. W. Potts, Gunnison, Miss., was duly received. The species is *Cissus incisa* Desmoul., listed by Scholl in "Texas Honey-plants," under the name of "cowitch." It belongs to the vine family, or Vitaceae, and is found in all

the Gulf states from Florida to Texas. The blooming time is from April to August, and where the vines are abundant a surplus is obtained.

The black berries have a scanty pulp, and, when dried, are much wrinkled. The taste is sweet and pleasant, and the juice would undoubtedly be attractive to bees, not one but every season. Careful examination with a lens showed small holes or perforations in a number of the dried berries, thru which bees could easily insert their tongue. But in many of the berries I could find no punctures. Very likely Mr. Potts is right, and the holes are made by some other insects. If made by bees it would seem probable that all the berries would be punctured, since as many as four bees were observed on one berry. Before drawing any definite conclusion as to whether bees add largely to their stores from this source, further and more extended observation would seem desirable; and I would suggest you bring the matter to the attention of the readers of *Gleanings*.

#### Brood Being Carried Out.

The bees keep carrying out brood even after the young bees are nearly ready to leave the cell. They were carrying out seven-day-old larvae, and I thought that it was lack of feed, so commenced feeding cane syrup, using the Boardman feeder. It did not seem to make any difference. The goldenrod flow is now on, and the bees are bringing in both honey and pollen, but as yet there is no change. I am just starting with bees in Florida. I never had this trouble in my apiary in Michigan. Ira J. Monroe.

New Augustine, Fla.

[It is a little difficult to decide what is your trouble without more detail. It is possible that the brood at some time was chilled or overheated. If the entrance of a hive be closed temporarily on a hot day, some of the brood may be injured, and the result will be that it will be carried out later. This will be shown by the young bees hatching out without wings. On the other hand, if the moth-worm is working among the combs it may destroy some brood, with the result that young bees will be carried out. If you were located in the northern states we should naturally conclude that the brood had been chilled by cool weather coming on. It is not an uncommon thing to see dead larvae and some young bees out in front of the entrance of a hive as a result of the brood being chilled perhaps a week or two before. In your climate, however, there would be no such trouble. Possibly the bees have gathered something that has killed the brood. You would do well to look very carefully to see whether there are any moth-worms at work on the combs.—Ed.]

#### Losses in Parcel-Post Shipments.

I wonder if it will surprise Mr. Chadwick when I tell him that my wife and I have charge of the postoffice in this little town,

and that we know that certain packages must have been willfully broken or else handled in a very violent manner. I believe both are partly true. Mr. Chadwick weakens his own argument when he says, page 184, March 1, "These sacks are handled as carefully as is possible with the volume of other parcels that are daily going thru the mail." That is exactly the trouble—"as carefully as is possible." At the junction town just west of here I have seen fifty tons of mail transferred from the C. M. & St. P. to the C. N. W. in a very short time, and I know that more than one "fragile" tag was flattened out under a ton of other "fragile" stuff, as the clerks had neither time nor room to care for it properly.

I was writing about extracted honey, which was put into tin cans which had the covers soldered on and were packed in corrugated paper. Some of these arrived at their destination empty, but no complaint of mail-matter being injured with honey. I do not charge that the honey was stolen, but it beats any sleight-of-hand work I can do, and I am counted quite clever. When I went to insuring every package the trouble ceased.

Dr. A. F. Bonney.

Buck Grove, Ia.

#### Winter Protection for Southern States.

I live southeast of central Kansas. I should like to ask you if, for wintering in this locality, the regular eight-frame dove-tailed hive would be all right with felt roofing, 3 x 4-foot pieces, capping it down over the hive and folding the ends down well, and tying binder twine around the hive. Of course I would leave them on their summer stands on four bricks, the north wind fairly well broken off.

Very few people pay much attention to bees here. They put them in a box and don't pack at all in winter.

Geo. C. Ableson.

Fredonia, Kan., Oct. 16.

[Ordinarily the locality of southeast Kansas would not require any special winter case. That is to say, bees will winter in single-walled hives; but it would pay to wrap the bees as you describe; yes, to go even further, and put regular winter cases around them, supplying packing of two or three inches. The government experts who have been testing out this matter have come to the conclusion that winter packing in the southern states will save a good many bees and the loss of considerable brood. We believe that it would be advisable to err on the safe side by giving too much packing rather than not enough. Of course, wrapping the hives in paper as you describe is an old method that is used somewhat in the southern states, and it is a great deal better than no packing. Better go a little better, and place newspapers on top of the hive and around it, and then fold the other paper around in the manner that you propose.—Ed.]



### When Shaking to Cure Foul Brood, What About the Drones?

I bought the bees near me two and three years ago, and burned and burned and burned to free the country from disease. I also shook and shook and shook, and it took me three seasons to learn that bees with drones had better not be shaken. When shaken on to starters the old drones just starve out and go right into some other hive and take the disease on their feet or bodies right along all over the yard. What becomes of the drones when bees are shaken for American foul brood?

Where should a frame be placed after drone comb has been cut out to prevent the rebuilding of drone comb?

Bradshaw, Neb.

C. B. Palmer.

[When there are many drones in a hive it would be possible, after the shaking, for them to spread the disease right and left. During certain seasons of the year when the breeding season is on, drones will be accepted in almost any hive; and after a general shake-up the presumption is that many of them will go into other hives and be accepted, while the worker-bees themselves from the diseased hive would be barred entrance; but in modern apiculture an excess of drones is not very common. In any case, the hives adjacent to a colony after shaking should be examined carefully for two or three weeks afterward, to make sure stray drones or other bees have not carried the disease.—Ed.]

### Do Bees Shift Stores During Winter?

There is a statement in the A B C and X Y Z which I believe to be an error; and if not too late I hope to see it corrected in the new edition. On page 627, second column, near the bottom, is this statement: "The long-continued cold has given them no opportunity to warm up and shift the cluster over in contact with the sealed honey." I think the bees usually shift the honey over to the cluster—always do, in fact, if they have the least particle of brood. Possibly you did not intend the statement to be construed in that way; but I believe most beginners in beekeeping would so understand it, and feel as I did, when we had a mild day, say in February, that the cluster had moved over to the stores and was safe. Really their safety was in proportion to the amount of honey they had been able to uncap and carry over to the cluster.

E. M. Cole.

Audubon, Iowa, Oct. 20.

This was forwarded to Dr. E. F. Phillips, of the Bureau of Entomology, who replies:

Mr. Cole is probably incorrect in believing that bees regularly shift honey during winter as they do in the fall, the fact doubtless being that the cluster is slowly moved toward the stores. The cluster is normally formed below the stores over empty cells

(usually to the front); and as the honey is consumed the cluster moves upward. If brood were present, as it should not be in mid-winter, they might move stores if the temperature within the hive were high enough. Under such conditions brood would probably not be present except in badly packed or unpacked hives, since brood-rearing often begins in response to cold within the hive and outside the cluster. We would expect, of course, that honey is moved from the edge to the inside of the cluster as needed.

There is much evidence that bees starve if they are not adjacent to honey, in case the temperature within the hive remains for some time too low to shift the cluster. This also would happen only in hives that were insufficiently packed and unprotected from wind.

Mr. Cole does not say what evidence he has of the moving of stores, as he seems to claim. If he has such evidence it would be well worth while for him to present it. The fact that the bees stay rather close to one place during winter is not proof of this, however, for in good wintering the amount of honey consumed is reduced.

The movement of the cluster is probably upward so long as there are stores above. When they reach the tops of the frames they go to the second story, if one is on, but in a one-story hive they move backward or forward more easily than to one side.

E. F. Phillips, Apiculturist.

### Foul-Brood Law in New South Wales.

The following is a copy of subsection, section 12, of the apiaries act, 1916.

"1. Every beekeeper shall each year, on or before a day in the month of September, to be fixed by the minister, apply to the Under Secretary and Director of Agriculture in the form prescribed, give in writing such particulars of and concerning his apiary as may be prescribed, including the number of colonies of bees in his apiary on the first day of the said month of September, and shall with such application forward a registration fee amounting to one penny for each colony of bees in his apiary on the said day. If any beekeeper fails to make such application, or fails to give such particulars as aforesaid, or gives any particulars which are to his knowledge untrue, he shall be liable to a penalty not exceeding twenty pounds."

We had a very poor honey harvest last year. We extracted 3720 lbs. from 74 colonies, three-fourths of which was gray-box honey (fall flow). Yellow box yielded little, and redgum turned out a failure. My bees have wintered well, coming out with no loss, in absolutely perfect condition. Bees are now (Sept. 25) just about to begin swarming. I sold all my honey last season at 6 pence per lb.

A. P. Haberecht.

Henty, N. S. W., Sept. 25.

# GLEANINGS FROM QUESTIONINGS

B. F. S., Newburg, W. Va. Will bees start queen-cells when there is a caged queen on top of the frame?

A. No hard and fast rule can be laid down in answer to this question. Ordinarily the bees will, but sometimes they do not. If a queen-excluder confines the queen below in a double-story hive, and a comb of eggs and young unsealed brood is put in the upper story queen-cells are apt to be started on that comb.

F. A. C., Golconda, Nev.—I have some weak colonies. How would it do to winter them over stronger colonies with an excluder between?

A. The plan of wintering two colonies with only an excluder between is not likely to be successful, for the bees are almost sure to desert one hive or the other, and all cluster together, leaving one of the queens to die because of being unable to get thru the excluder.

H. W. A., Watertown, Tenn. We still have a few drones. If a very late queen should mate now, how long would it be before she would begin to lay?

A. The queen may be mated this fall and not lay till next spring. In your locality she ought to lay soon after being mated.

C. R., Bedford, N. H. Do shallow extracting-frames have to be wired to prevent breakage in the extractor? I have 20 colonies. What size of extractor should I get?

A. Usually the shallow extracting-frames do not need to be wired. Some wire them, it is true, but only two strands of wire are necessary.

If you do not expect to enlarge your apiary a two-frame non-reversible extractor would probably be large enough.

S. S. B., Loveland, O. One of my colonies has just killed a queen which I introduced. What had I better do?

A. Rather than risk another queen as late as this we think it would be far better for you to unite the colony with some other colony weak in bees but having a good queen. While queens may be introduced as late as this it is a little risky, for the cold weather is likely to come on at any time to prevent any further examination.

A. G., Ben Avon, Pa. How can I get the honey out of some wired combs and still save the combs? I have no extractor.

A. It is very slow and tedious work attempting to get honey out of combs without a honey-extractor. If you do not wish to save the combs you could crush them up and strain the honey thru cheese-cloth by

means of pressure; but about the only way you can do and save the combs is to slice the cappings off, place the honey in a warm place, and let it drain out into a dish beneath large enough to catch it. This is very slow, however, for the honey evaporates and becomes quite thick so that you can not get it all out, but it is the only way that we know of.

L. S. B., Toronto, O. I have a colony with a young queen, and there are many small drones not much larger than workers. They were hatched in worker cells. What had I better do?

A. The chances are this young queen was reared late—too late to be mated—and has, therefore, become a drone-layer. Of course, there may be some other reason why she has become a drone-layer. At any rate, the colony will not be likely to winter. If there is a pretty good force of worker bees that are not old it might pay to unite the colony with some other colony having a queen; but if the bees are all quite old, and the colony not very strong anyway, we do not think it would pay you to try to save it as late as this.

O. B. C., Utah. Referring to your editorial on "Best Temperature to Heat Honey to Keep Liquid" you do not state the length of time that the temperature may be maintained at 160 F. We should also like to know if the can should be open while being heated, to give the best permanent results. Will a lower temperature maintained for several hours after honey is liquefied give the same results, say at 130 or 140, as higher temperature for shorter period of time?

A. When honey is heated to a temperature of 160 degrees Fahr., it should not be kept at that point much over an hour. The shorter the time the better. Honey that is heated to, say, 130 degrees and kept at that point for four or five hours, will keep liquid for a longer period under a variety of conditions than honey heated quickly to 160 and cooled quickly. But the trouble with the honey that is heated to 130 and kept there for four or five hours is that it turns darker than honey heated quickly to 160 and cooled quickly. Honey should never be heated except thru the medium of hot water or with steam. With the latter agent there is danger of getting the temperature too high. Hot water is better, provided the thermometer is used to test it. No honey should be heated without having a thermometer in it all the time the temperature is being raised. When the high point is reached, the heat should be shut off. The screw cap should be left off while the honey is heating if the can is full. If it is clear full some should be taken out or it will run over.



A. I. Root

## OUR HOMES

Editor

Blessed are the dead which die in the Lord from henceforth: Yea, saith the Spirit, that they may rest from their labors; and their works do follow them.—REV. 14:13.

SOME PERSONAL RECOLLECTIONS OF YEARS  
AGO, OF MY OLD FRIEND PROF. A. J. COOK.

I cannot recall at present just when or how my acquaintance commenced with Prof. A. J. Cook of Michigan Agricultural College. Soon after GLEANINGS was started he began answering questions sent us by our correspondents, both in regard to honey-plants and insects. I have always been more or less interested in maple-sugar making. In fact, it was one of the hobbies of my childhood; and when some one remarked that there ought to be a *book* on the subject of making maple sugar, as Prof. Cook had a maple-sugar bush of his own, I suggested that he write such a book; and while this matter was under way I made a trip to Agricultural College, Michigan, and Prof. Cook very kindly invited me to go with him to his home, and there I became acquainted with his estimable wife and two very bright children. I think, as far as I can recall, I made two and perhaps three visits to his home. During one of those visits I was greatly pleased with their form of family worship. Each one of the family read a verse. Then they all knelt down while the good father led in prayer. At one time the children were studying German with the view of having the whole family make a visit to Germany later on. They had a German Bible, and read the lesson first in German and then in English. I recall that on one of my visits I stayed over Sunday, and of course was present at the opening of the Sunday-school exercises. Prof. W. J. Beal led the Bible class; and I was impressed by his able way of talking to students about the Bible. I hardly need tell our readers that Prof. Beal, since that time, has occupied many high and important positions, besides his years of service at Cornell University. Of course I went along with friend Cook when he talked to his class of college boys. I remember that at dinnertime Mrs. Cook asked him what he had for the boys on that particular morning. His reply was simply "Night-dresses." At that time it was a novel idea to myself, and I presume it was so to the lot of young farmer-boy students, that men or boys should wear *night dresses* as well as the women-folks. I shall never forget that talk on night-dresses. In his peculiar and emphatic way he urged every boy present

to commence at once, if he had not already done so, to remove every bit of apparel worn during the day and replace it with a night-dress. I think he recommended a daily sponge bath; but he emphasized very strongly the importance of a good air bath any way, before putting on the night-dress. Altho I listened most attentively, and was sure he was right about it, I am ashamed to say it was toward twenty or thirty years after that before I adopted a daily bath and night-dresses.

Our good friend Cook was not afraid to carry his religion along with him in all the daily walks of life; and even when he was a boy, perhaps a bashful boy, he had the courage to stand up before the world for righteousness, purity, and temperance; and his good wife was right with him every time. I will tell you a little story of something that happened so long ago that perhaps I shall not get it all exactly as it occurred; but I can tell it so it will carry the moral.

Lansing is the capital of the state, and when the legislature assembles there are not only prominent politicians but prominent lawyers, doctors, and noted men in all the walks of life there. It happened one day that young Cook was obliged to ride in a stage coach with a lot of these "big men" who were on the way to the state-house. One of these commenced telling a low vulgar story. Prof. Cook, young as he was, protested. The great lawyer or politician with a contemptuous look at the boy said something like this:

"If a boy cannot stand men's talk, perhaps he had better get out and go afoot."

Our young friend was not at all vanquished. He replied something as follows:

"All right, I will get out and go afoot if this story is to be continued."

Then he called to the driver to stop, and stepped out. Just as the driver began clucking at the horses to go on, some one in the crowd spoke up:

"Hold on, driver! Come to think it over, I believe I too will get out and go on foot with the boy."

Then another one put in, "Well, if my wife were here I think she would admonish me to get out also."

My good friends, what do you suppose happened? Before the matter was settled every one of the crowd got out or started to get out, leaving the narrator of the obscene story to ride in the coach alone. I cannot recall how it was settled; but if

my memory serves me right it was something like this:

The man who started to tell the smutty story did the only *manly* thing he could do. He said something as follows:

"Gentlemen, get back in the coach and ride. I hereby apologize to the young man, and own up that he was right and that I was wrong."

I hope the state of Michigan has more young men of that kind. There you have, friends, a word picture of Prof. Cook when I first knew him.

The back numbers of GLEANINGS are full of his kind helps and suggestions. He was always present at the conventions of the Michigan beekeepers, and he was usually chosen to preside. He had a peculiarly happy way of making every one present say something. At one state convention at Lansing he commenced, as usual, calling on one after another. Well, there was a certain boy present at this meeting, and Prof. Cook kindly asked *him* about his beekeeping. He remarked that he was keeping bees "in company with his father."

"Well, now, that is a splendid idea," said Prof. Cook. "What better partner could a boy have than his father? and what better partner could a father have than his own son?"

That boy, by the way, is now Mr. A. L. Boyden, the husband of "Blue Eyes." I have mentioned their two boys, one of whom is taller than his father or mother. This *boy* of years ago has, perhaps, more to do now with our large honey business, buying and selling, than any other one of the firm.

In 1879 there were so many beekeepers who would persist in sending queens by mail in rickety home-made cages that the Postoffice Department issued orders, "No more queen-bees by mail." Now, even tho the traffic was then comparatively small to what it is now, it was going to entail quite a hardship and a sudden check on this branch of rural industry. Somehow everybody seemed to agree that *Prof. Cook* was the man to go to Washington with proper queen-cages and present the matter to the Department in order that queen-bees might be once more permitted to go thru the mails. Now, as far back as 1880 Prof. Cook's well-earned reputation was such that President Hayes invited him to ride with him and Mrs. Hayes in the President's car. Mr. Hayes asked Prof. Cook many questions about the new industry of beekeeping, and promised to use his influence in permitting queens once more, if properly protected, to be sent by mail. It was a great disappointment to

me, and perhaps to a host of others, when we were told that friend Cook was to leave Michigan College and go to California. But what was our loss it seems was California's gain. Ernest gave you quite an extended sketch of Prof. Cook's work at Pomona, Cal., in GLEANINGS for March, 1912.

Prof. Cook was from boyhood a wonderful teacher. Teaching was his special forte. Some years ago it was my privilege to listen to Prof. Holden in one of his celebrated talks on Indian corn. He had various specimens of ears of corn, corn plants, corn silk, etc., that he held up before the audience, and his way of talking impressed me strangely. I kept saying to myself, "Why, who is it that Prof. Holden reminds me of?" I finally decided that he was wonderfully like Prof. Cook in his talks to his classes at Michigan College. After the lecture was over I said to Mr. Holden, "Are you acquainted with Prof. Cook? Have you ever met him?"

"Why, my good friend Root, he was my teacher away back years ago; and to him I owe more, perhaps, than to any one else, what I have been able to give the world in my corn talks."

There you see it, friends. In the language of our text, the lifework of any good man follows him ages after he is dead and gone, and so on thru all eternity. That little episode on the crowded stage coach started a wave of purity that may extend on thru the ages. Years afterward, when visiting Mammoth Cave, in Kentucky, on the way over to the cave in a crowded stage coach some one started an impure story. The memory of what Prof. Cook did prompted me to protest; and when the narrator snarlingly said, "Well, who are you, anyway?" I simply said that I was a professing Christian, and felt that such stories would do no good and might do much harm. He never finished the story.

#### "GOD'S KINGDOM COMING."

My frequent use of the above heading has already called forth considerable remark and comment. Just now a newspaper clipping has been sent me, but with no intimation as to its source. It is one of the utterances of that sainted woman, Frances E. Willard. As she died long before any intimation of the present war, her words come down to us as a precious prophecy or inspiration. As you read it will you not breathe a prayer that God may *hasten* the "Coming of his kingdom"?

We all believe that one of the choicest fruits of Christianity will be the growth of a bond of brother-



hood and sisterhood so close among all nations, races, and peoples, that we shall become truly kindred each to the other, and that great word "humanity," like a rolling wave of the ocean of God's love, shall wash out from the sands of time the words caste, creed, sex, and even that good word patriotism, because we shall feel that the whole world is our country and all

men are our kin. Every utterance of appreciation, affection, and friendship; every token of mutual co-operation; every stroke of honest hard work undertaken side by side; every sincere prayer, helps toward this beautiful day that we call "the coming of the kingdom of God."

## POULTRY DEPARTMENT

### WHOLE GRAIN INSTEAD OF GROUND GRAIN FOR POULTRY.

Some years ago, if I remember correctly, I saw a statement from some state or national authority to the effect that it does not pay to *cook* feed for chickens, swine, cows, or horses. I have been for many years under the impression that in a like manner it does not pay to grind grain for poultry—that is, the gizzard of the fowl will do the grinding in the natural way, and give as good results as if the corn, wheat, oats, etc., were ground for them. I do not recall just where I got the idea; but I have for several years supposed that if the chickens could help themselves to corn, wheat, and oats, and a plenty of green stuff, together with animal food of some sort, it was about all I could do for them. Of late years our experiment stations, I am well aware, have recommended different "mashes" kept in places where the fowls could help themselves. Down in my Florida poultry-ranch I have fed whole grain principally. At different times I have procured mashes particularly recommended; but whether the chickens were not used to mashes or for some other reason, they paid but little attention to them. I have always supplied them with ground raw bone, also with lettuce, cabbage, kale, etc., in abundance. Well, I have in my hand a statement from the University of Missouri from which I clip the following:

It should be remembered that one of the principles of poultry-feeding is that the hen cannot do well if fed on a whole-grain ration. Not only does a ration of grain fail to furnish the proper food nutrients, but such a ration is difficult for the bird to digest properly. The great fault with the farmer in his poultry-feeding is that he attempts to feed a whole-grain ration, and generally only one grain at that. Such a ration results in poor egg-production and also causes digestive disorders and liver and kidney troubles. Complaints of this kind frequently come to the department of poultry husbandry, and a suggested change in the ration has usually resulted in the elimination of the trouble. Efficient digestion demands a combination of whole and ground grains. A ration should consist of grains and ground feeds. Generally speaking, twice as much grain should be consumed as ground feed. This depends, of course, upon the nature of the foods fed.

After reading the above over for several times I decided to send it to the poultry

department of our Experiment Station at Wooster. Below is their reply:

*Mr. Root.*—It is a rather common practice among poultrymen who devote some special attention to poultry feeding to feed a dry mash made up of various ground feeds and milling by-products as a part of the ration. I do not know of any experiments along this particular line that have shown that such a course is justified by the results secured.

In an experiment which we began here last December, one lot receives a ration made up of 3 parts corn, shelled; 2 parts wheat, 1 part oats, with 10 per cent by weight of meat scrap fed in a trough each day at noon. On the basis of this one experiment, the use of a dry mash seems advisable, altho we shall want to continue this work for a number of years before announcing definite results. You will note in our Bulletin 291 that a dry mash was used in all of the experiments. In the light of present knowledge it would seem advisable to allow about one-third of the ration to be a dry mash, composed of milling by-products and meat scrap, and probably ground corn.

W. J. BUSS,

Assistant, Poultry Husbandry.

Wooster, O., Sept. 30.

Just now I am getting the best results in the way of eggs from a small number of pullets that I have ever had in my life so far as I can remember; and they have been having for a month past almost nothing but sweet corn in the way of grain.\* Most of the sweet corn is dry, hard, whole grain. They have a little sour milk and a few scraps from the table. I might say right here, however, that the way Mrs. Root manages our household there is but very little left for the chickens unless it is bones which we grind up. And this reminds me that, altho I have in years past tried about every bone-mill on the market, the one that pleases me most is the Wilson "Crown" mill. I think the list price is only \$9.00. It is made by Wilson Brothers, Easton, Pa. It is all easily "get-at-able," and very simple, with no loose parts to be dropping or

\* One reason for feeding the fowls almost entirely on sweet corn was to see if our good friend is right in what he says about sweet corn for chickens on page 689; and another thing, these pullets that I am writing about are the Eglantine strain that claims to be remarkable layers; and it may be the strain has more or less to do with the fact that these young pullets, after laying their first egg, the biggest part of them have given us an egg every day for a month or six weeks past. My experience has been heretofore that pullets seldom lay every day at the start, especially if they commence at the age of five or six months. There are seven pullets that for quite a spell past (it is now October 16) from which we have been getting five eggs one day and six the next.

tumbling down, necessitating soiling your fingers, etc. For a flock of a dozen fowls it is all right; but if you have a hundred or more you will probably need a rather larger-sized machine. This machine will grind "corn in the ear," so as to be available for chicks, at a very fair speed.

#### THE EGLANTINE CHICKENS UP TO DATE.

The article above, as will be seen, did not get in at the time I expected. On page 879, Sept. 1, I mentioned one of the Eglantine pullets that began to lay when four months and eight days old. She laid an egg every day, or almost every day, until she was about five months old, and then she wanted to sit. The novelty of seeing a pullet wanting to sit when only five months old, and a Leghorn pullet, too, wanting to sit, was such that I concluded to let her have her own way. I gave her 13 eggs, 2 of which were not fertile, and out of the 11 she hatched 8 chicks. The weather was so cold, however, and probably, also, on account of their being only pullet's eggs, she hatched out only 8, 6 of which are now following their mother all over the premises.

Some years ago the *Rural New-Yorker* gave a picture of a pullet that they called "The Youthful Mother." One of the friends who reads GLEANINGS sent a copy of the picture, and we had it for several years hanging up on the wall in our home. I think their pullet began laying at about 4½ months of age, so you see mine is a little ahead. She is a splendid mother except that when the weather is cold she does not brood her chickens quite as much as an old hen would. She just scratches and scratches out in the garden from daylight till dark; and she is about the busiest hen or pullet I ever had anything to do with. I said on p. 954, Oct. 1, that the Eglantines of which I gave you a picture on page 878 were still laying eggs. Well, I shall have to except one that was run over by an automobile. I have been in the habit of letting them out of the yard at four or five o'clock in the afternoon, and before I knew it they got up into the street. I suppose they were attracted by the droppings of horses passing along the road. I drove them back repeatedly, and now I am mourning the loss of one of my Eglantines.

\* Traveling over the country I frequently see dead chickens by the roadside—run over by automobile, doubtless. If this is true everywhere as it is around here, will it not pay farmers and others to have some sort of front fence to keep the chickens out of the main highway? Of course it is desirable to let them have the run of the farm in order that they may destroy insects, and thus save expensive feed, also. When one is in a hurry it often causes considerable delay to slack up to avoid running over any chicken that may take a sudden notion to cross the road in front of the machine.

I spoke about feeding sweet corn. Well, we grew enough sweet corn in our garden to supply the pullets until about the middle of October. Until the supply of sweet corn gave out I was getting five or six eggs a day; but just as soon as the corn was gone, and I gave them *field corn*, the laying dwindled until finally there were two days when I did not get an egg. I noticed that when I gave them field corn they looked at it rather suspiciously. They did not seem to feel sure that it was *good* to eat. It has now been a little over a week since I made the change, and now I am getting one or two eggs a day. Now, does the above indicate that sweet corn is a better feed for chickens, or was it simply a *change* of food? I think I have seen it stated that an abrupt change in rations will probably stop laying more or less; but I should hardly imagine that changing from one kind of corn to another kind would stop their laying entirely. We might think that the approach of cold weather (and we have had some very cold nights) just about the time they gradually stopped laying was the cause of it. The two older Leghorn hens I have mentioned are now moulting; but none of the pullets show any tendency to moult that were hatched in April in Florida.

#### THE "OUTDOOR SLEEPING-PORCH" FOR THE EGLANTINE CHICKENS.

On page 878, Sept. 15, I gave you a picture of said sleeping-porch. Well, when the weather came on cold, especially when we had cold rains, I was very curious to know whether the chickens had sense enough to go down inside of the coop and roost under shelter. I am glad to say they have gone down three times inside—twice when there was a big rain, and once when there was a very high wind. On one occasion there seemed to be a difference of opinion among them. The rooster and three hens went inside while the rest stuck to their outdoor roost. So far I regard the experiment as a success; and I do believe it would pay to make some arrangement to let poultry roost outdoors when the season or weather permits. I have now 15 chickens besides the 7 pullets and rooster which I expect to ship down to Florida by express the day before we start, Nov. 14.

#### A KIND WORD FROM THE HOME OF THE EGLANTINE CHICKENS.

*Mr. Root:*—I want to thank you for various mentions of Eglantine chickens in GLEANINGS, and I sincerely trust that your success with Eglantine stock continues. It will if you do not breed immatures or overdo inbreeding.

I enclose a clipping from yesterday's *North American* telling of the doings of some Eglantine birds. I



wish Queen Caroline would stop laying and go into moult, but she is slowing down gradually. She didn't stop with 510 eggs, but that was her accomplishment in two years.

We believe the generation of chickens now coming into laying will give some marvelous records, which doesn't mean that we hope to beat the individual record of Lady Eglantine.

If I knew chickens as you know bees I'd get along faster than I do. But we are putting deep study, hard work, and the utmost of conscientious care into the improvement of our strain.

October 30.

A. A. CHRISTIAN.

Together with the above came a clipping from the *Philadelphia North American* of Oct. 29. The clipping contained three pictures of the Eglantines. Below is what we find under the picture clipping.

#### TWO HENS LAY 1010 EGGS IN TWO YEARS.

These seventeen Eglantine hens in twenty-four consecutive months laid 7389 eggs—an average of 434½. In their pullet year they laid 3933—average 231 1-3, and in hen year, 3456—average 203¼. Queen Caroline, upper right circle, laid 510, and Queen Mary, upper left circle, 500. This picture, made Monday, found some of the birds in the roughness of moulting. Two more Eglantine hens are expected to complete 400-egg records—their period ending October 31. Eighty-seven Eglantine pullets this year qualified in the 200-egg class—the best record will considerably exceed 280. Eglantine Farms have entered two pens in the competition to open next Wednesday—one for scientific observation.

As some may be asking, we would state that the Eglantine Farms are located at Greensboro, Md.

## HIGH-PRESSURE GARDENING

THE GARDENETTE; OR, CITY BACKYARD GARDENING BY THE SANDWICH SYSTEM.

Something over a year ago Robert Livingston, of the Livingston Seed Co., wrote me, saying that I must go and see Benjamin F. Albaugh at Covington, Ohio, who was making some wonderful improvements in the way of growing stuff on a small area of ground. Our friends will remember that our tomato book, part three, is devoted to "how to support a family on one-fourth of an acre." Well, I did not go to visit friend Albaugh; but I have just got hold of one of the books he has recently put out, and it has been a delight and a surprise to me to see how nearly he and I had been experimenting along the line of "high-pressure gardening" without either knowing about what the other was doing. This book has 138 pages, and it is not only full of beautiful and enticing pictures on the inside, but it is also covered with beautiful pictures of what he has done in his backyard garden on the outside.

The "Sandwich System" is much on the line of the hotbeds and cold-frames that I described on these pages twenty or thirty years ago. The reason why he calls it "sandwich" is, as I understand it, that he sandwiches rotting leaves, straw, coarse stable manure, etc., between layers of soil, river sand, etc. Let me make some extracts—first from page 24, where we read:

If only one square rod is available, it will pay to have a "gardenette."

Again, on page 7:

The author has repeatedly produced on a plot containing but four square rods about the following:

Then he makes an enumeration of about 40 different vegetables which he grew on the above four square rods, and adds:

At a low estimate these are worth \$40.00. Often they would cost much more to buy. But it is not only the market value of the vegetables, but freshness and fine quality that should be considered.

On page 10 we read the following:

Finest vegetables can be grown on hard, stony, or alkaline soils, where ordinary cultivation would be utterly fruitless. Even where "made" soils consist mainly of brickbats and old wall plaster, the sandwich beds flourish. A solid rock, a paved street, or the tops of flat-roofed buildings, could be made into a successful garden by this method.

Further on he describes what he calls his "plant-incubator." This consists of a bed for growing early plants for transplanting by the heat of a common coal-oil lamp. I think he uses sash with glass to some extent, but mostly frames of the size of ordinary sashes covered with cheap cotton sheeting; and in order to keep out frost the better, he stretches cloth on *both sides* of the frame so as to inclose a dead-air space. Let me digress a little right here:

During the past season here in Ohio we have had the finest tomatoes we ever grew, and we have also had more tomatoes to the plant than I ever saw before. When I got back from Florida, "Blue Eyes," who is now quite a gardener, gave me six tomato-plants. She said the seed came from one of the finest tomatoes that grew the year before; and the tomatoes from those six plants were large, smooth, and (if Mrs. Root had not forbidden it) I would say they were the most delicious tomatoes I ever tasted *in all my life*. Well, I thought I had made a big invention in the way of a tomato-trellis, and I was going to make a picture of it to put in GLEANINGS. It consisted of three straight stakes driven in triangular form, each one a foot or a little more from the tomato-plant; then for a support I got a

coil of pretty good-sized wire and stapled it spirally around the three stakes. The only mistake I made was that I did not have my stakes driven into the ground far enough, and my wire was not heavy enough. The consequence was, the great load of tomatoes bent the wire and pulled one stake out of the ground so that it could tip over. Well, now my good friend Albaugh has just "gone and done" the same thing, except that he uses *binder twine* instead of wire, which will be cheaper and easier to put on, and probably will last about as long. Well, you know that potatoes have been my hobby, not only up in Michigan and here in Ohio, but down in Florida. Page 43 of this book contains the following sentence:

Treated as above described, the author has grown, on a space 6 x 20 feet, seven measured pecks of choice potatoes.

You will see from the above he got over a peck of potatoes from a space of ground equal to a 3x6 frame. We do not understand that he used any cloth frame, but that the small amount of ground gave over a peck of potatoes. With potatoes \$2.00 a bushel, as they are now, just figure up how much could be done on a whole acre on the "sandwich plan."

I might go on and give accounts of what he has done with various garden stuff, but our space forbids. He has accomplished with flowers also the wonderful results mentioned in regard to vegetables, and the book is "chockful" of the finest pictures I ever saw in any book.

This book, in paper covers, when first put out, contained only 64 pages, and is offered at 60 cts. The large cloth-bound edition contains 138 pages, price \$1.25. We can furnish either one. Elsewhere will be found an offer of either book clubbed with GLEANINGS.

#### BEEKEEPING, DAIRYING, AND SOME OTHER FARM INDUSTRIES CONTRASTED.

We clip the following from the Iowa *Agricultural*:

The normal cost of beekeeping is exceedingly small in comparison with other farming pursuits. It costs cents for materials and appliances, where dollars are invested in expensive machinery for dairying, and the income from the first investment is the greater.

Not only is it the "materials and appliances," but for poultry, cows, etc., you have got to raise or buy feed. I often think of this down in Florida when purchasing grain at a big price for my chickens. A hive of bees, after it is once established, requires no expense for feed. They feed themselves as a rule, and the owner also. You may suggest that beekeepers sometimes

are obliged to buy sugar; to which I reply, very seldom unless you have taken away more of their honey than was wise or prudent.

#### GOATS, GOATS' MILK, AND GOAT PERIODICALS.

Mr. Root:—In your issue of Oct. 15, in regard to goats for milk, as we find it hard to buy milk of any kind here I shall be very much obliged for any word on the matter as to where one can buy a goat, and where the periodicals you speak of can be had. The name of such periodicals will be thankfully received.

CHAS. BLAKE.

Snow Road, Ont., Canada, Oct. 27.

We give the above because there have been a number of similar letters in regard to the goat industry. While down in Florida last winter we had several numbers of the periodical; but the only thing I can get track of just now is the *Angora Journal* (monthly, \$1.00), published in Portland, Oregon. I presume some of our readers can give the address of those having goats for sale; and I myself have been thinking of having a goat to milk on our three acres of wild land in Florida. Would the goat interfere with the chickens or the chickens with the goat? Who can tell?

#### "GOD'S KINGDOM COMING."

It is now too early, Nov. 9, to give a full report of what has been accomplished by the recent election; but we can well say, "May the Lord be praised" for what the following gives us, which we clip from the *Cleveland Plain Dealer* of Nov. 9:

#### 25 STATES NOW IN DRY'S COLUMN.

CHICAGO, Nov. 8.—More than half of the forty-eight states of the Union have been put into the dry column. Those which were added to the election Tuesday, making the total of dry states twenty-five, are Michigan, Nebraska, South Dakota, Montana, Utah, and Florida. The territory of Alaska has also been added to the dry possessions of the states.

The states which voted on the liquor question in which the dry forces seem to have been defeated, altho the returns are not all in, are California and Missouri.

F. Scott McBride, superintendent of the Illinois Anti-saloon League, thus stated the situation:

"A number of victories were gained for dry legislation in the defeat of propositions put forward by the wets intended to act as checks on the dry movement. In Colorado an attempt was made to secure an amendment favoring the use of beer under certain restrictions, and in South Dakota and Arkansas the wets championed local option as against statewide prohibition.

"In each instance the plans of the wets were defeated.

"The victory in Utah and in Florida was in electing a legislature favorable to dry legislation. The legislature is expected to pass promptly statutory prohibition.

"In the four other states which voted dry, the people voted directly on the dry issue.

"The statewide victories against the saloon were secured thru the Anti-saloon League in the various states, and give great encouragement to the aim of the league—a saloonless nation by 1920."



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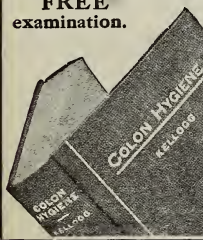
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MARTIN CARSMOE, Ruthven, Iowa.

No. 1 white comb, \$3.50 per case; No. 2, \$3.00; No. 1, fall comb, \$3.00; No. 2, \$2.50; 24 sections to case; extracted in 60-lb. cans; clover, 9 cts.; amber, 8 cts. Amber in pails, 6 ten-pound or 12 five-pound to case at \$6.00 per case. H. G. QUIRIN, Bellevue, O.

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WANTED.—Extracted honey in any lots. Send sample and prices. ED. SWENSON, Spring Valley, Minn.

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WANTED.—Comb and extracted honey at jobbing price. NATIONAL HONEY-PRODUCERS' ASSOCIATION, Kansas City, Mo.

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FOR SALE.—Apiary and 160 acres of land, cheap. Old age compels. JOHN G. SOLDAN, Oberlin, Mich.



In the Imperial Valley, 10-acre alfalfa ranch, good soil; large new house; place well improved; 230 stands of bees; 10-frame hives; good bee location, 4 miles from El Centro; 3 miles from Imperial on good roads. WM. BARTH, Rt. 1, El Centro, Cal.

A small farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Hospitable neighbors. Good roads, schools, and churches. Write for our San Joaquin Valley illustrated folders free. C. L. SEAGRAVES, Industrial Commissioner A. T. & S. F. R'y, 1934 R'y Exchange, Chicago.

FOR SALE.—Eighty acres 1½ miles from the Columbia River; 20 clear good bottom land; 20 in growing timber; rest, pasture; 114 colonies of bees, leather-colored; supplies on hand for 300; large shop, modern house, and other outbuildings; trout creek runs here; the place is a splendid location for bees. Write for particulars.

MRS. L. SCHMITT, Oak Point, Wash.

VIRGINIA AND NORTH CAROLINA FARMS, \$15 PER ACRE and up. Easy payments. Fruit, dairy, stock, climate, schools, churches, roads, markets, and neighbors of the best. Get our Farm Lists, Magazine, and other interesting literature, all free. Address F. H. LABAUME, Agr. Agt. N. & W. Ry., 246 N. & W. Bldg., Roanoke, Va.

THE SOUTH FOR FARM PROFITS.—Southern lands are low in price—give large yields of corn and other grains, grasses, and forage crops: all kinds truck; grow fine fruit. You can get good lands in healthful location, where climate is pleasant and works for you, where two and three crops grow annually, for \$15 to \$50 an acre, according to improvements. Great opportunity for general farmers, stock-raisers, dairymen, poultry-raisers, fruit and truck growers. Information on request. M. V. RICHARDS, Ind. and Agr. Commissioner, Room 27, Southern Railway, Washington, D. C.

## WANTS AND EXCHANGES

WANTED.—For spring delivery, 600 colonies of pure Italian bees. Write LEWIS H. FERGASON, Box 108, Windham, N. Y.

WANTED.—To rent bees in the Salt River Valley. Have had six years of experience in the Buckeye Valley. A. J. ROSS, 2209 N. Monroe St., Phoenix, Ariz.

WANTED.—To furnish every beekeeper within 500 miles of Boise, Idaho, with the best and cheapest bee supplies on the market, *quality considered*. Send me your order or a list of your requirements for 1916. Our catalog and price list will be mailed to you free. Order early and get the discounts.

C. E. SHRIVER, Boise, Idaho.

## BEES AND QUEENS

Finest Italian queens. Send for booklet and price list. JAY SMITH, 1159 De Wolf St., Vincennes, Ind.

Well-bred bees and queens. Hives and supplies. J. H. M. COOK, 84 Cortlandt St., New York.

FOR SALE.—300 to 500 colonies in A No. 1 condition in famous Hagerman Valley, where failure is unknown. Address J. E. HANKS, Hagerman, Ida.

My choice northern-bred Italian queens are hardy, and will please you. Orders booked now for spring delivery. Free circular. F. L. BARBER, Lowville, N. Y.

FOR SALE.—Golden Italian queens that produce golden bees; for gentleness and honey-gathering they are equal to any. Every queen guaranteed. Price \$1; 6 for \$5. WM. S. BARNETT, Barnetts, Va.

FOR SALE.—Italian bees, 1 lb. with queen, \$2.25; one-frame with queen, \$2.00. Queens, 75 cts. each. Safe delivery guaranteed; 30-page catalog with beginner's outfit for stamp. THE DEROY TAYLOR Co., Newark, N. Y. (formerly Lyons).

My bright Italian queens will be ready to ship April 1, at 60 cts. each; virgin queens, 30 cts. Send for price list of queens, bees by the pound and nucleus. Safe arrival and satisfaction guaranteed.

M. BATES, Rt. 4, Greenville, Ala.

PHELPS' Golden Italian Queens combine the qualities you want. They are great honey-gatherers, beautiful and gentle. Mated, \$1.00; 6, \$5.00; tested, \$3.00; breeders, \$5.00 and \$10.00. C. W. PHELPS & SONS, Wilcox St., Binghamton, N. Y.

Golden Italian queens that produce golden bees; the highest kind, gentle, and as good honey-gatherers as can be found; each, \$1.00; 6, \$5.00; tested, \$2.00; breeders, \$5.00 to \$10.00.

J. B. BROCKWELL, Barnetts, Va.

Queens for requeening. Best on market. One untested, \$1.50; 12, \$12.00; one tested, \$2.00; 12, \$18.00; one select tested, \$3.00; 12, \$24.00. Special low price on 50 or more. Write. Safe delivery and satisfaction guaranteed. THE J. E. MARCHANT BEE & HONEY CO., Canton, Ohio.

QUEENS.—Improved three-banded Italians, bred for business, June 1 to Nov. 15, untested queens, 75 cts. each; dozen, \$8.00; select, \$1.00; dozen, \$10.00; tested queens, \$1.25 each; dozen, \$12.00. Safe arrival and satisfaction guaranteed.

H. C. CLEMONS, Rt. 3, Williamstown, Ky.

TENNESSEE-BRED QUEENS.—My three-band strain that has given such universal satisfaction for over 40 years. Orders filled promptly or money returned by first mail. 1000 nuclei in use. Tested, in June, \$1.75; untested, \$1.00; in July, \$1.50 and 75 cts. Postal brings circular.

JOHN M. DAVIS, Spring Hill, Tenn.

## HELP WANTED

WANTED.—Position in an apiary in the South, Southwest, or West. FRED E. OSBORNE, Ahearn, Florida.

WANTED.—Apiarist. State wages wanted, and give references, age, and experience. Permanent position and good home for right man. W. J. STAHMANN, Clint, El Paso Co., Texas.

WANTED.—Young man or lady to take charge of apiary, 146 colonies; steady employment at fair wages; board and washing. Must be of clean character; a lover of music and good books preferred; if preferred, wife could give piano lessons in part payment for service. No user of liquor or tobacco need apply. L. W. MAXWELL, Turkey River, Iowa.

## Convention Notices

The Indiana Beekeepers' Association will hold its annual meeting at the State House in Indianapolis, on Monday and Tuesday, November 27 and 28. We wish to arrange a good program for each day.

Redkey, Ind., Nov. 1. GEO. W. WILLIAMS, Sec.

The Kansas State Beekeepers' Association will hold its annual meeting at Topeka, Nov. 20, 21. A good program is being prepared, and we hope all persons interested in bees will be present. There will be a honey banquet served at noon of the 21st.

Topeka, Kan. O. A. KEENE, Sec.

The Wisconsin State Beekeepers' Association will meet in annual convention in the Assembly Room in the Capitol Building, Madison, Wis., December 7 and 8. An interesting program will be presented, and we are looking for the largest attendance at this time, altho we had an attendance of about 150 last year. We expect Dr. Phillips and other prominent beekeepers to be there. Headquarters will be at Simons Hotel, Augusta, Wis. GUS. DITTMER, Sec.

The Annual Stockholders' Meeting of the Idaho-Oregon Honey Producers' Association will be held in the City Hall assembly rooms, Ontario, Oregon, on Tuesday and Wednesday, December 5th and 6th. The first day's session will be given over to the election of directors for the coming year, while the second day's session will be more in the nature of a social one, discussions relative to honey production being in order.

All beekeepers in this territory are cordially invited to attend. P. S. FARRELL, Sec'y.  
New Plymouth, Idaho, Oct. 27.

The fifth annual convention of the Iowa Beekeepers' Association will be held at Des Moines, December 5 and 6. Judging from the list of men high up in the bee-world who have written Sec. Miller their acceptance, this meeting will be the best ever held. The Secretary, H. B. Miller, is filled with energy and enthusiasm clear to the brim, and the arrangements he is now making will make it worth the while of every beekeeper who can possibly do so to attend. Those desiring information as to hotels, train services, etc., should write H. B. Miller, Marshalltown, Iowa, or P. C. Scranton, care of the A. I. Root Co., Des Moines.  
Des Moines, Ia., Oct. 27. F. C. SCRANTON.

The twentieth annual meeting of the Chicago Northwestern Beekeepers' Association will be held in the Great Northern Hotel, Room 138, on Monday and Tuesday, December 4 and 5, 1916. The program is not completed, but the following expect to be there and read a paper on the subject following their names: N. E. France, Platteville, Wis., "Marketing Honey;" Edward Hassinger, Jr., Greenville, Wis., "About Heating and Clarifying Honey;" Louis C. Dadant, Hamilton, Ill., subject not announced; Kenneth Hawkins, Plainfield, Ill., "Displaying Live Bees in Chicago Groceries;" Dr. E. F. Phillips, Washington, D. C., "Extension Work in Beekeeping;" Prof. Francis Jager, of Minneapolis, will be present and read a paper entitled "The National and its Problems." Dr. C. C. Miller writes that he hopes to be present. The question-box will be made a strong feature. Of course many others will have papers.  
Valparaiso, Ind. JOHN C. BULL, Sec.-treas.

#### LAST CALL FOR MICHIGAN'S THANKSGIVING CONVENTION.

This is the last notice that will appear before Michigan is enjoying her fifty-first convention. Programs will be sent to all members of the association, and we shall be glad to mail programs to all interested beekeepers not members.

If you attended our last meeting at Grand Rapids you know what good times we had. This year we are looking for a larger attendance and a better time; so make your plans to attend. Your time and money can not be spent to better advantage.

The meetings will be held in the Capitol building, Lansing. Hotel accommodations can be had from 50 cents up, and cafes are reasonable in their charges. Headquarters will be the Wentworth Hotel, on Michigan Avenue East, and street-cars pass the door from all depots.

Come along, then, and eat your Thanksgiving dinner in Lansing. Following is the program:

THURSDAY—1:30 P. M.

President's Address, Mr. David Running.  
Prevention of Swarming, Mr. C. P. Dadant, Hamilton, Ill.  
Establishing a Trade Name for Honey, Mr. E. R. Root, Medina, Ohio.  
The Sale of Honey, Mr. E. D. Townsend, Northstar, Mich.

Extension Work in Beekeeping, Dr. E. F. Phillips, Washington, D. C.  
Some Beekeepers I have Met (illustrated lecture), Frank C. Pellett, Atlantic, Iowa.  
Possibilities of the Combless Bee Package, Mr. A. G. Woodman, Grand Rapids, Mich.  
Choosing a Location for Beekeeping, Mr. Ira D. Bartlett, East Jordan, Mich.  
Successful Winter Feeding of Bees in Cellar, Mr. Leonard Griggs, Flint, Mich.  
Which Should Beekeepers Produce—Extracted or Comb Honey? Mr. Floyd Markham, Ypsilanti, Mich.  
Efficient Beekeeping, Mr. E. S. Miller, Valparaiso, Indiana.

Some Reasons for Failures in Beekeeping, Mr. F. Eric Millen, East Lansing, Mich.  
Banquet Supper, Gift of The A. I. Root Co., Medina, Ohio, and Messrs. M. H. Hunt & Son, Lansing.

This year the association is giving away four medals, to be won outright, for exhibits of about 150 pounds of comb and extracted honey. The comb-honey medals will bear the portrait of Dr. C. C. Miller, and the extracted-honey medals will bear the portrait of L. L. Langstroth. There will be a silver and bronze medal for each class.

For the small class exhibits there will be nicely gotten-up diplomas, and these will take the place of cash or bee supplies which have been given formerly. These diplomas should prove good advertisements to the winners in their home localities, and we feel sure that the winners will feel proud of them. Following is a list of exhibits:

A—150 sections comb honey; first premium, Miller silver medal; second, bronze medal; third, diploma.

B—150 pounds extracted honey; first, Langstroth silver medal; second, bronze medal; third, diploma.

C—12 sections clover comb honey; first, second, and third, diplomas.

D—12 sections raspberry or other light comb honey; first, second, and third, diplomas.

E—12 sections amber or dark comb honey; first, second, and third, diplomas.

F—12 pounds clover extracted honey; first, second, and third, diplomas.

G—12 pounds raspberry or other light extracted honey; first, second, and third, diplomas.

H—12 pounds amber or dark extracted honey; first, second, and third, diplomas.

I—12 pounds extracted candied honey, most salable condition for market; first, second, and third, diplomas.

J—12 pounds beeswax; first, second, and third, diplomas.

K—one dozen honey cookies.

L—one dozen bran honey cookies.

M—Two pounds honey fruit cake.

N—Best apiarian appliance.

Diplomas will be given for Class J to N as in other classes. Exhibits must not bear the name or mark of exhibitor until after judged. All exhibits must be the product of the exhibitor or a member of his family.

Honey will be judged by the following scale of points:

Extracted—Style, 10; body, 20; color, 30; flavor, 40—total, 100.

Comb—Cappings, 30 (color, 15; finish, 10; no travel stain, 5). Honey, 50 (body, 10; color, 15; flavor, 25). Comb, 15 (well attached); section, 5 (clean).

Beeswax—Style, 10; color, 35; aroma, 25; cleanliness, 30.

Challenge medals will be competed for as follows: Classes C to I—Firsts, four points; seconds, two points; thirds, one point.

Classes J to N—Firsts, two points; seconds, one point; thirds, ½ point.

All exhibits must be in place on the evening of the 30th.

The silver medal is given by the Michigan jobbers in bee supplies, and is known as the Jobbers' medal.

The bronze medal is given by the Association, and is known as the Association medal.

The challenge medal must be won three times before becoming the property of the exhibitor. This is the second year for competition for these medals.

Programs will be sent to all members of the association, and can be secured by any other interested beekeeper.

East Lansing, Mich

F. ERIC MILLEN, Sec.